XV-D1000

SERVICE MANUAL

AEP Model

SPECIFICATIONS

Electrical characteristics

Video system	PAL
Signal system	Double frame synchronizing
Video switching	Vertical blanking
Video processing	Component system (Y/R-Y/B-Y)
Quantization	8-bit
Sampling rate	14.218 MHz for Y, 3.55 MHz for R-Y/B-Y
Memory capacity	1 frame per A/B system

Video performance

DP (10 to 90 % APL)	Less than 3°
DG (10 to 90 % APL)	Less than 6 %
Cross talk (4.43 MHz)	Less than −52 dB
Frequency response (1 MHz reference)	300 kHz to 5.0 MHz $^{+1.0}_{-4.0}$ dB
S/N	More than 45 dB
Horizontal resolution	More than 500 TV lines
Luminance level variable range	About ±10 %
Horizontal center level variable range	About ±0.5 µSEC
Chrominance level variable range	About ±10 %
White balance level variable range	About ±50 %

Audio performance

Line audio level variable range	About ±10 dB
Frequency response	20 Hz to 20 kHz
Distortion	Less than 0.2 %
S/N	More than 60 dB
Cross talk	Less than −60 dB

Input

Video	3 lines, (INPUT 1/2/3 (front)) S-VIDEO IN: 4-pin mini DIN connectors (3) Luminance: 1 Vp-p, 75 Ω, unbalanced, sync negative Chrominance: 286 mVp-p, 75 Ω, unbalanced VIDEO IN: Phono jacks (3) 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Audio	4 lines (INPUT 1/2/3 and AUX) Phono jacks −7.5 dBs, impedance 1 kΩ or more
GPI	Mini jack
EDIT I/F	8-pin mini DIN connector

— Continued on next page —

DIGITAL SPECIAL EFFECTS GENERATOR

SONY®

MICROFILM

Output

Video	2 lines (OUTPUT 1/2) S VIDEO OUT: 4-pin mini DIN connectors (2) Luminance: 1 Vp-p, 75 Ω, unbalanced, sync negative Chrominance: 286 mVp-p, 75 Ω, unbalanced VIDEO OUT: Photo jacks (2) 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Audio	2 lines (OUTPUT 1/2) Phono jacks –7.5 dBs, impedance 47 kΩ or less

General

Power requirements	European models except United Kingdom: 220 – 230 V AC, 50/60 Hz United Kingdom models: 240 V AC, 50 Hz
Power consumption	24 W
Operating temperature	5 °C to 35 °C (41 °F to 95 °F)
Storage temperature	–20 °C to +60 °C (–4 °F to +140 °F)
Dimensions	Main unit About 430 x 71 x 367 mm (w/h/d) (17 x 2 $^{7}/_{8}$ x 14 $^{1}/_{2}$ inches) Control unit About 340 x 55 x 225 mm (w/h/d) (13 $^{1}/_{2}$ x 2 $^{1}/_{4}$ x 8 $^{7}/_{8}$ inches)
Mass	Main unit About 5 kg (11 lb) Control unit About 1 kg (2 lb 3 oz)

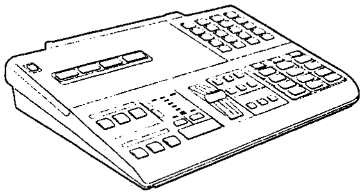
Design and specifications are subject to change without notice.

Note

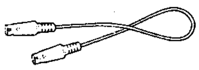
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

Supplied accessories

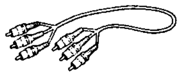
Control Unit (1)



S video connecting cable (2)



A/V connecting cable (2)



SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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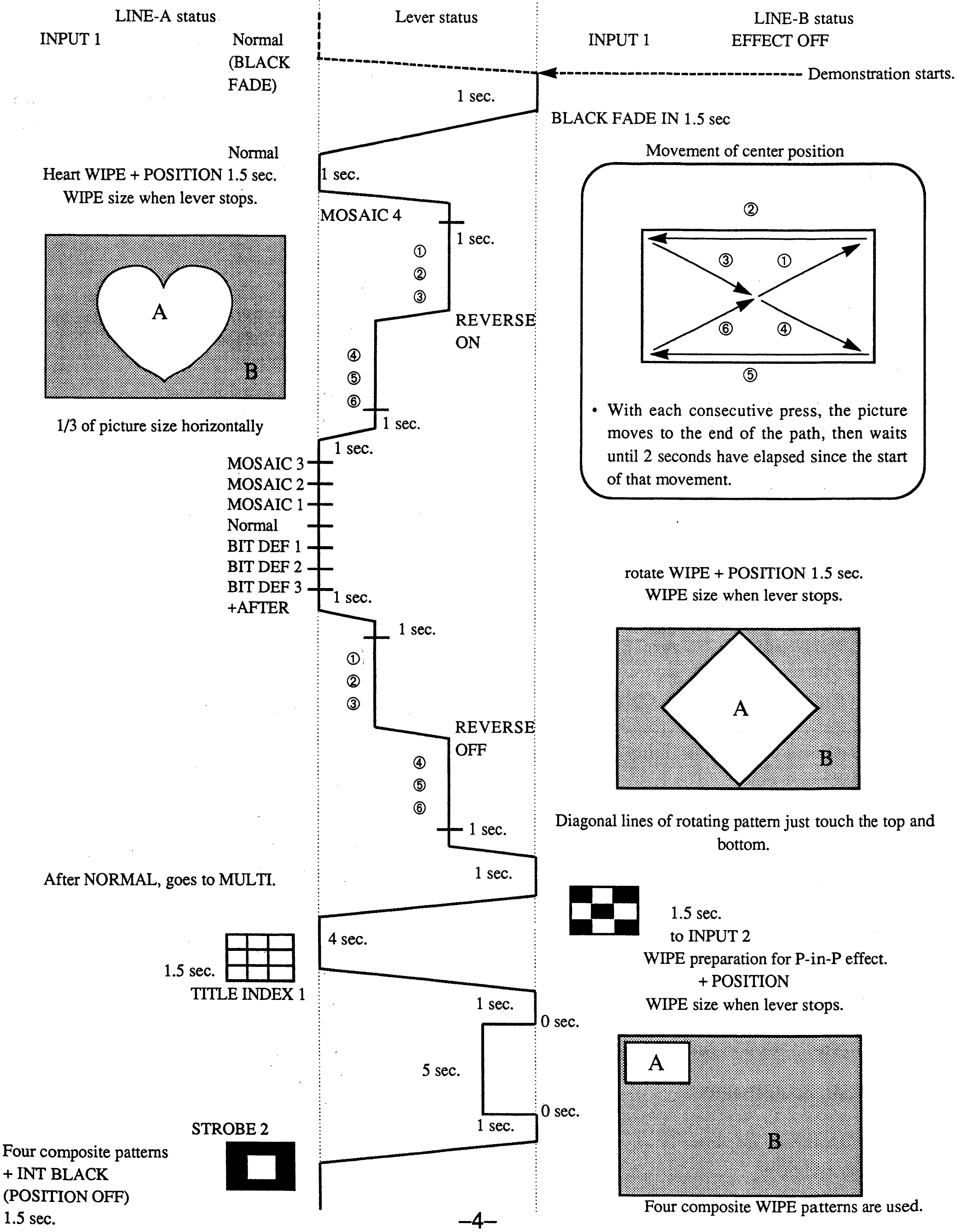
SERVICING NOTES

1. MOVEMENT IN DEMONSTRATION MODE


LINE-A status
INPUT 1
Normal
(BLACK FADE)
Lever status
LINE-B status
INPUT 1
EFFECT OFF
Demonstration starts.
1 sec.
BLACK FADE IN 1.5 sec
Normal
Heart WIPE + POSITION 1.5 sec.
WIPE size when lever stops.
1 sec.
A
B
1/3 of picture size horizontally
MOSAIC 4
1 sec.
①
②
③
REVERSE ON
④
⑤
⑥
1 sec.
1 sec.
Movement of center position
②
③
①
⑥
④
⑤
MOSAIC 3
MOSAIC 2
MOSAIC 1
Normal
BIT DEF 1
BIT DEF 2
BIT DEF 3
+AFTER
1 sec.
1 sec.
①
②
③
REVERSE OFF
④
⑤
⑥
1 sec.
rotate WIPE + POSITION 1.5 sec.
WIPE size when lever stops.
A
B
1 sec.
After NORMAL, goes to MULTI.
4 sec.
1.5 sec.
TITLE INDEX 1
1.5 sec.
to INPUT 2
WIPE preparation for P-in-P effect.
+ POSITION
WIPE size when lever stops.
1 sec.
0 sec.
5 sec.
0 sec.
1 sec.
STROBE 2
Four composite patterns
+ INT BLACK
(POSITION OFF)
1.5 sec.
A
B

- With each consecutive press, the picture moves to the end of the path, then waits until 2 seconds have elapsed since the start of that movement.

Diagonal lines of rotating pattern just touch the top and bottom.

Four composite WIPE patterns are used.

LINE-A status
INPUT 1

STROBE 2

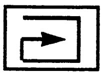
MOSAIC MIX 1.5 sec.

BIT DEF 3

MONOTONE MIX 1.5 sec.

AFTER IMAGE

1.5 sec.



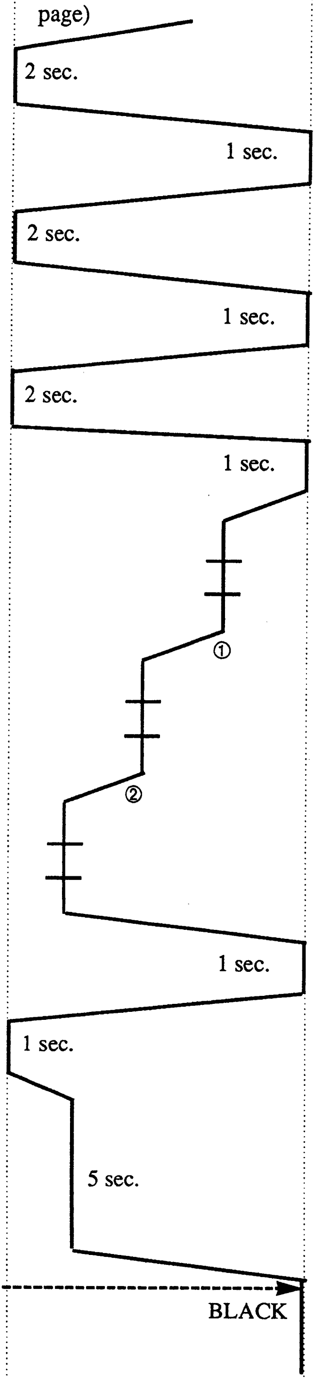
+ INT BLACK

TITLE INDEX 1
TITLE INDEX 2
TITLE INDEX 3
TITLE INDEX 4
TITLE INDEX 5
TITLE INDEX 6
TITLE INDEX 7
TITLE INDEX 8
TITLE INDEX 9

Vertical composite WIPEs in BLACK FADE setting, for 1.5 sec.

Demonstration ends.
To continue demonstration, wait for one second.

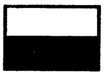
Lever status
(continued from previous page)



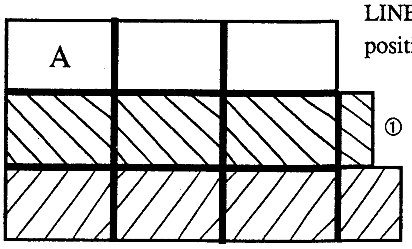
LINE-B status
INPUT 2
EFFECT OFF

star pattern wipe 1.5 sec.

RND 16 + INT BLACK 1.5 sec.

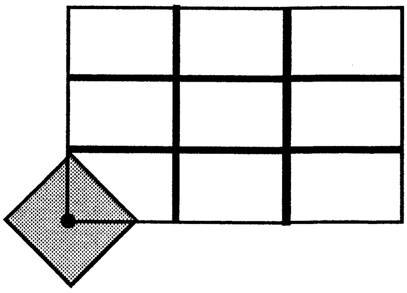


1.5 sec.

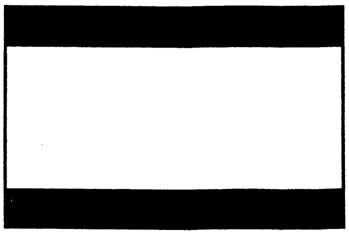


LINE-B picture position

Diamond pattern + POSITION + REVERSE 1.5 sec.
Position the center at the bottom left.



WIPE size when lever stops.



Moves until aspect ratio reaches 15:9.

2. SERVICE MODE SETTING

Perform the adjustments for this unit with an EVR (Electronic Variable Resistor).
This mode is for making adjustments in the field with an EVR when a computer is not available. It is possible to operate all EVR functions from the control unit in service mode.

1. Entering Service Mode

1) Switch off RECALL and WIPE POSITION.
2) Similarly switch off PROGRAM MEMORY and SET, DEL and OPTION of A/V ADJ MEMORY.
3) Press AUTO to light it.
4) Move the switching lever to side A.
5) Press the START MEMORY button of PROGRAM MEMORY.
6) Press button 4 of PROGRAM MEMORY.
7) Press button 10 of PROGRAM MEMORY twice.
8) Move the switching lever to side B.
9) Press button 7 of PROGRAM MEMORY.
10) Press button 1 of PROGRAM MEMORY.
11) Press button 5 of PROGRAM MEMORY.
12) Press button 7 of PROGRAM MEMORY.
13) Move the switching lever to side A.
14) Press the START button on the left of the switching lever.

When these steps are completed, the unit beeps five times and enters service mode.
The POWER lamp on the control unit flashes while the unit is in service mode.

2. Operations in Service Mode

1) It is impossible to control with EDIT I/F or GPI.
2) It is impossible to switch the OPTION functions.
3) The WIPE POSITION button is not operable.
4) The A/V ADJ MEMORY function is not operable.
5) The PROGRAM MEMORY block buttons have the servicing functions listed below.
6) The restrictions on the variable range and intervals of the LUMINANCE/H CENTER, CHROMINANCE and WHITE BALANCE button are removed.

Note: Do not press the OPTION button.

The Buttons for EVR Adjustment

Program Memory Block

Button 1: Sets SYNC LEVEL ADJ with up and down buttons.
Button 2: Sets BURST LEVEL ADJ with the up, down, right and left buttons.
Button 3: Sets WHITE FADE OUT LEVEL ADJ with the up and down buttons.
Button 4: Sets the SET UP LEVEL ADJ with the up and down buttons.
Button 5: Sets the Y/C SEP Y LEVEL ADJ : up and down buttons for LINE A, right and left buttons for LINE B.
Button 6: Y/C SEP C LEVEL ADJ (no adjustment)
Button 7: Sets the FADER DC BALANCE ADJ : up and down buttons for LINE A, right and left buttons for LINE B.
Button 8: Not used.
Button 9: Sets the WRITE Y LEVEL ADJ: up and down buttons for LINE A (no adjustment), right and left buttons for LINE B.
Button 10: Control unit check. All LEDs light. Press any button except the POWER button to reset the unit. Then the control unit check is complete.

SET button: This button writes the adjustment values to the EEPROM. Always press this button after adjustment.
DEL button: This button returns all the adjustment values to the values which were set before shipping.
OPTION button: This button used to rewrite the values set before shipping. Do not press this button out of the field.
If this button is pressed, release the mode with any button except the SET button.

A/V ADJ Block

LUMINANCE/H CENTER button:
Sets the READ Y LEVEL ADJ with the up and down buttons, and the H. CENTER ADJ with the right and left buttons.

CHROMINANCE button:
Sets the CHROMA LEVEL ADJ with the up and down buttons, and the CHROMA HUE with the right and left buttons.

WHITE BALANCE button:
Sets the WHITE BALANCE ADJ. with the up, down, right and left buttons.

3. Terminating Service Mode

Press the POWER button on the unit or control unit to turn off the power.
When the power is turned on again, the unit enters normal mode, and the POWER lamp on the control unit does not flash, but lights.

Note: After adjustment, save the adjustment values in the EEPROM by pressing the SET button.
Do this before switching off the power.

3. SERVICE POSITION

1) Servicing the MB-61 boards.
   As shown in Fig. 1, stand the boards vertically. The MB-61 boards can be checked from both side A and B.

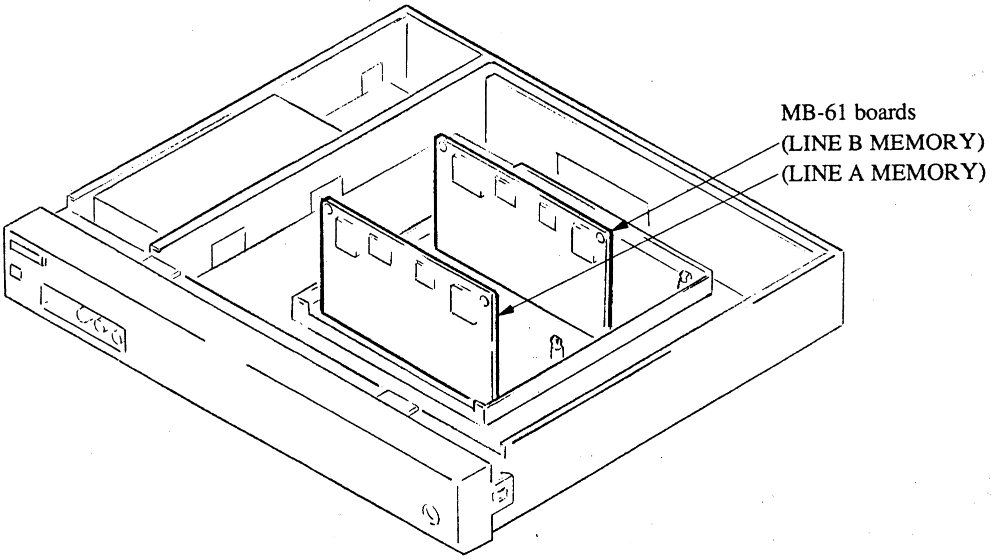

MB-61 boards
(LINE B MEMORY)
(LINE A MEMORY)

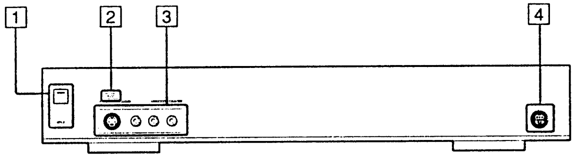
Fig. 1

Parts Identification

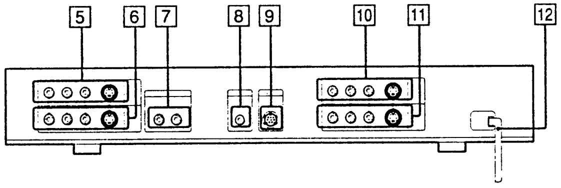
For the use of each control, see the pages indicated in the parentheses.

Main Unit

Front panel



Rear panel


5
6
7
8
9
10
11
12

Front panel

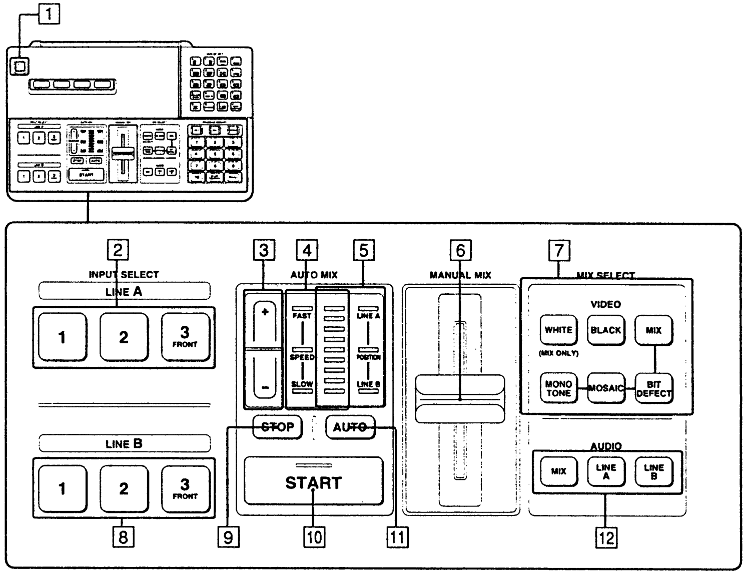
- 1 POWER ON/OFF switch and the STANDBY indicator (15)
- 2 EDIT I/F indicator (52)
- 3 INPUT 3 (S VIDEO/VIDEO/AUDIO L/R) jacks (10)
- 4 CONTROL UNIT connector (12)

Rear panel

- 5 INPUT 1 (S VIDEO/VIDEO/AUDIO L/R) jacks (9)
- 6 INPUT 2 (S VIDEO/VIDEO/AUDIO L/R) jacks (9)
- 7 AUX (auxiliary) AUDIO INPUT L/R jacks (11)
- 8 GPI INPUT jack (12)
- 9 EDIT I/F INPUT jack
- 10 OUTPUT 1 (S VIDEO/VIDEO/AUDIO L/R) jacks (10)
- 11 OUTPUT 2 (S VIDEO/VIDEO/AUDIO L/R) jacks (11)
- 12 AC power cord

Control Unit

INPUT SELECT/AUTO MIX/MANUAL MIX/MIX SELECT section

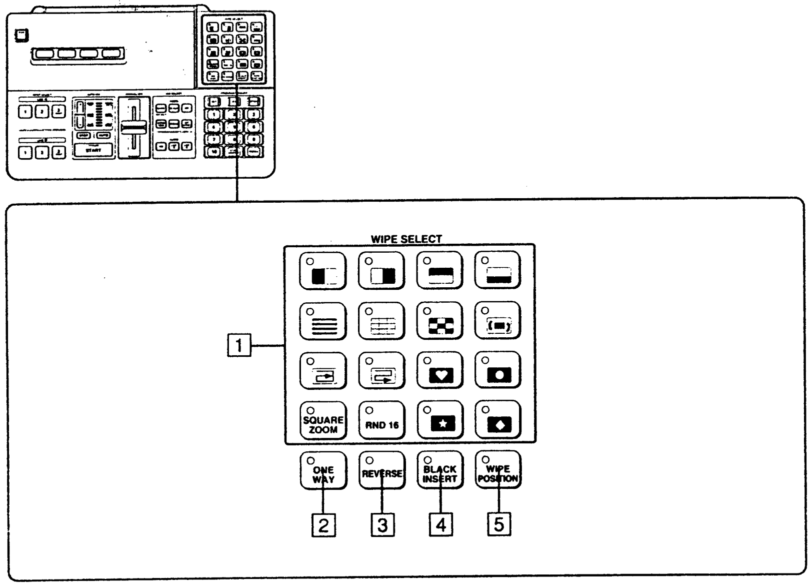

1
2
3
4
5
6
7
INPUT SELECT
LINE A
1
2
3 FRONT
LINE B
1
2
3 FRONT
AUTO MIX
+
-
FAST
SPEED
SLOW
LINE A
POSITION
LINE B
STOP
AUTO
START
MANUAL MIX
MIX SELECT
VIDEO
WHITE
BLACK
MIX
(MIX ONLY)
MONO TONE
MOSAIC
BIT DEFECT
AUDIO
MIX
LINE A
LINE B
8
9
10
11
12

- 1 POWER ON/STANDBY switch (13, 15)
- 2 LINE A input select buttons (16)
- 3 +/– switching speed adjustment buttons (27)
- 4 SPEED indicators (27)
- 5 POSITION indicators (26, 27)
- 6 Switching lever (14, 27)
- 7 MIX SELECT VIDEO switching pattern buttons (18, 19)
- 8 LINE B input select buttons (16)
- 9 STOP button (28)
- 10 START button (27)
- 11 AUTO button (27)
- 12 MIX SELECT AUDIO buttons (29)

This section is extracted from instruction manual.

Parts Identification

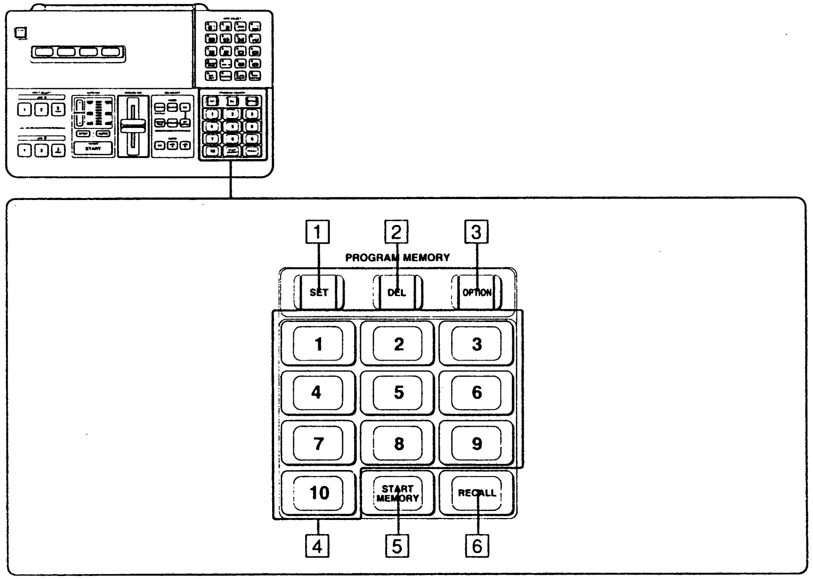
WIPE SELECT section



WIPE SELECT
1
SQUARE ZOOM
RND 16
ONE WAY
REVERSE
BLACK INSERT
WIPE POSITION
2
3
4
5

1 Wipe pattern buttons (20)
2 ONE WAY button (21)
3 REVERSE button (21)
4 BLACK INSERT button (21)
5 WIPE POSITION button (24)

PROGRAM MEMORY section

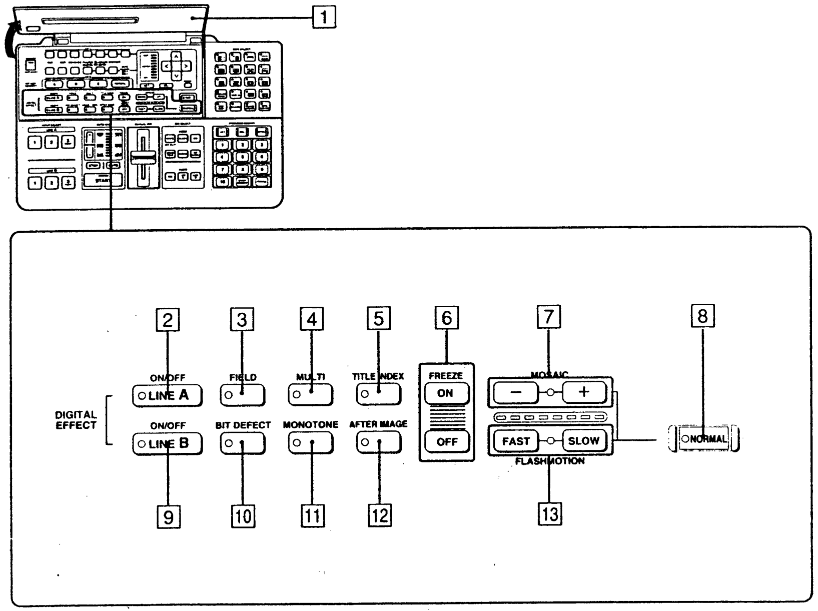


1
2
3
PROGRAM MEMORY
SET
DEL
OPTION
1
2
3
4
5
6
7
8
9
10
START MEMORY
RECALL
4
5
6

1 SET button (45, 48)
2 DEL button (47)
3 OPTION button (54)
4 Program number buttons (45, 53)
5 START MEMORY button (48, 53)
6 RECALL button (46)

Parts Identification

DIGITAL EFFECT section


1
2
3
4
5
6
7
8
ON/OFF
○LINE A
FIELD
MULTI
TITLE INDEX
FREEZE
ON
MOSAIC
−
+
DIGITAL EFFECT
ON/OFF
○LINE B
BIT DEFECT
MONOTONE
AFTER IMAGE
OFF
FAST
SLOW
FLASHMOTION
○NORMAL
9
10
11
12
13

1 Cover

2 LINE A ON/OFF button (32)

3 FIELD button (30, 32)

4 MULTI button (30, 32)

5 TITLE INDEX button (30, 32)

6 FREEZE ON/OFF buttons (30, 32)

7 MOSAIC +/– buttons (30, 32)

8 NORMAL button (32)

9 LINE B ON/OFF button (32)

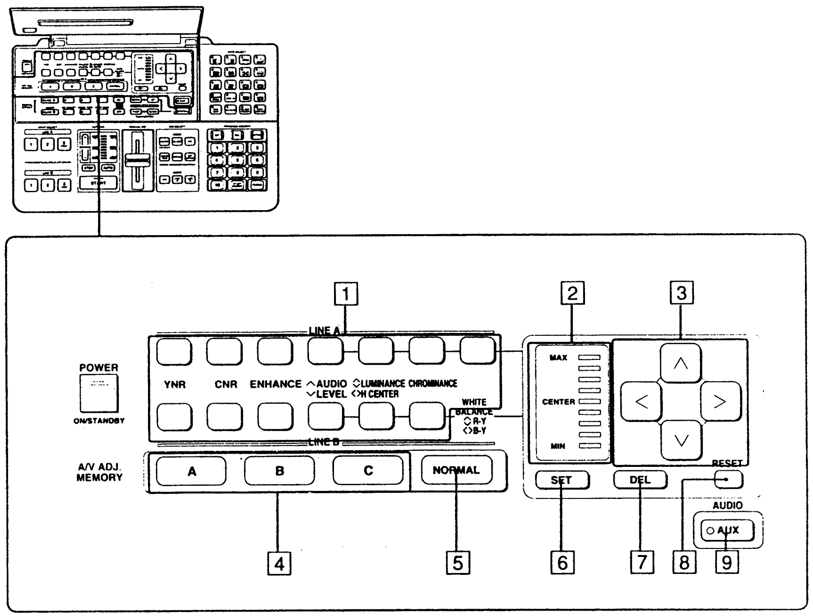
10 BIT DEFECT button (30, 32)

11 MONOTONE button (30, 32)

12 AFTERIMAGE button (30, 32)

13 FLASHMOTION FAST/SLOW buttons (30, 32)

A/V adjustment section


1
2
3
LINE A
POWER
ON/STANDBY
YNR
CNR
ENHANCE
AUDIO LEVEL
LUMINANCE
CHROMINANCE
H CENTER
WHITE BALANCE
R-Y
B-Y
LINE B
MAX
CENTER
MIN
A/V ADJ. MEMORY
A
B
C
NORMAL
SET
DEL
RESET
AUDIO
○AUX
4
5
6
7
8
9

1 LINE A/LINE B adjustment item select buttons (34)

2 Adjustment level indicator

3 Adjustment buttons

4 A/V ADJ. MEMORY A/B/C buttons (41)

5 NORMAL button (40)

6 SET button (41)

7 DEL button (42)

8 RESET button (40)

9 AUDIO AUX button (29)

Which Connections to Make?

You can connect equipment such as player, monitor, recorder, audio equipment and editing controller to the digital SEG. You can connect a maximum of 3 players.

The connections depend on what you are going to do using the digital SEG.

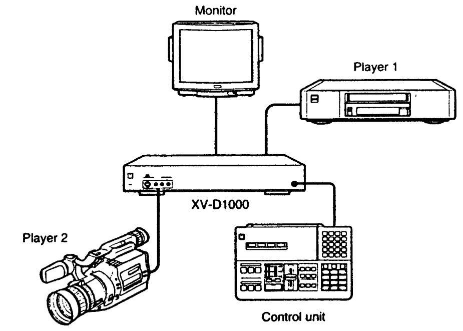
- Connection to process and switch the images
- Connection to process and edit the image
- Connection to mix the sound from audio equipment
- Connection to control from editing controller

The equipment you need and how to connect them are explained below.

Connection to Process and Switch the Images

You need 2 players and 1 monitor.
You can connect 3 players.
If you have only 1 player, you can still enjoy processing a picture as you can select same signal for the LINE A and LINE B image, see page 16.
Follow "Connections":

1 (page 9)
↓
2 (page 10)
↓
6 (page 12)

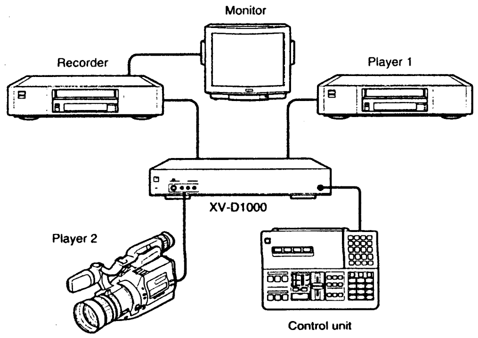

Monitor
Player 1
XV-D1000
Player 2
Control unit

Connection to Process and Edit the Image

You need 2 players, 1 recorder and 1 monitor.
Follow "Connections":

1 (page 9)
↓
3 (page 11)
↓
6 (page 12)

When you connect a recorder, connect a monitor to the recorder so that you can view the playback picture on the recorder.

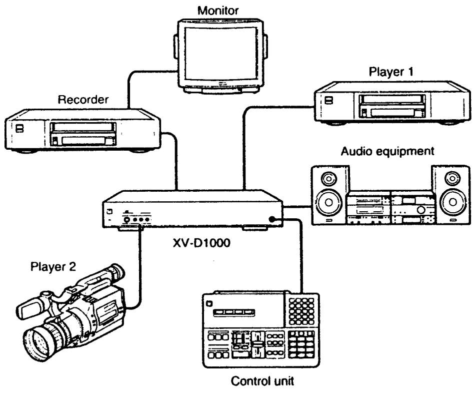

Monitor
Recorder
Player 1
XV-D1000
Player 2
Control unit

Connection to Mix the Sound from Audio Equipment

You need 2 players, 1 monitor, 1 recorder and audio equipment such as a CD player.
Follow "Connections":

1 (page 9)
↓
3 (page 11)
↓
4 (page 11)
↓
6 (page 12)

When you connect a recorder, connect a monitor to the recorder so that you can view the playback picture on the recorder.

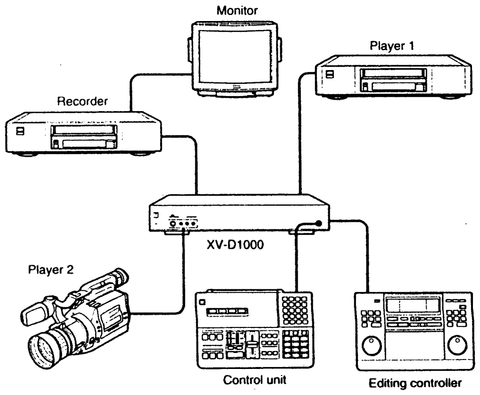

Monitor
Player 1
Recorder
Audio equipment
XV-D1000
Player 2
Control unit

Connection to Control from Editing Controller

You can execute the program memory of the digital SEG from an editing controller with GPI output such as the Sony RM-E500/E700 (not supplied).
Follow "Connections":

1 (page 9)
↓
3 (page 11)
↓
5 (page 12)
↓
6 (page 12)

When you connect a recorder, connect a monitor to the recorder so that you can view the playback picture on the recorder.


Monitor
Player 1
Recorder
XV-D1000
Player 2
Control unit
Editing controller

Notes on Connection

- Be sure to turn off the power of the equipment before connection.
- When both the player and the recorder have S video jacks, we recommend connecting the S video jacks to obtain a high quality picture.
- Connect the red plug to the right audio jack (red) and the white plug to the left audio jack (white).
- Connect the yellow plug to the video jack (yellow).
- If you connect both of the S video and video input jacks, the S video signal is selected automatically. To view the video signal, disconnect the S video input jack.
- You may connect the player through the video input jack and the recorder through the S video output jack.
  The video signal input to the digital SEG can be output through the S video output jack.
- Or you may connect the player through the S video input jack and the recorder through the video output jack. In this case, the S video signal input to the digital SEG can be output through the video output jack.
- When you connect a monaural player to the INPUT jacks of the digital SEG, connect only the left (white) jack for audio. The sound is output from the left and right in monaural.
- When you connect a monaural recorder to the OUTPUT jacks of the digital SEG, use a monaural audio connecting cable.
- When your monitor has an EURO-AV (21-pin) connector, use the VMC-2106S connecting cable (not supplied).

Optional Connecting Cables

We recommend that you use the following A/V connecting cables to connect additional players or recorders.

To connect a stereo model		
VMC-810HG	1 m	phono x 3 to phono x 3
VMC-815HG	1.5 m	
VMC-820HG	2 m	
VMC-830HG	3 m	

To connect an S video jack		
YC-10V	1 m	4-pin mini-DIN to 4-pin mini-DIN
YC-15V	1.5 m	

To connect a video jack		
VMC-10HG	1 m	phono x 1 to phono x 1
VMC-30HG	3 m	

Audio connecting cable		
RK-C510HG	1 m	phono x 2 to phono x 2
RK-C515HG	1.5 m	
RK-C520HG	2 m	
RK-C530HG	3 m	
RK-C230HG (for monaural model)	3 m	phono x 2 to phono x 1

Connection 1 — Connecting the Players

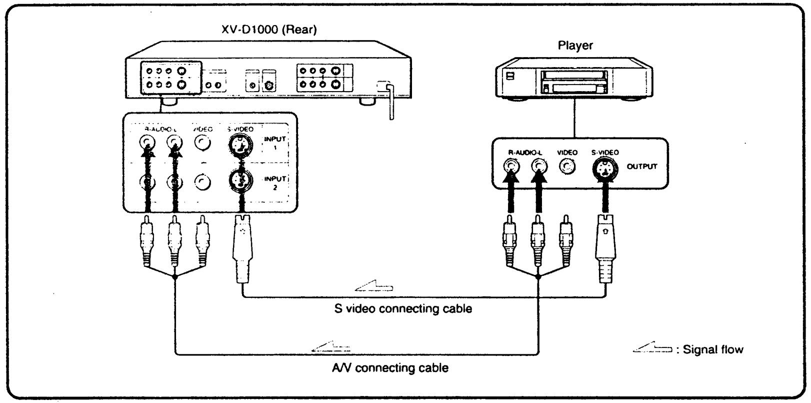
You can connect 3 players to the digital SEG using the INPUT 1 and INPUT 2 jacks on the rear paneal, and the INPUT 3 jacks on the front panel.

Note

If you need more connecting cables, use the recommended connecting cables shown on page 8.

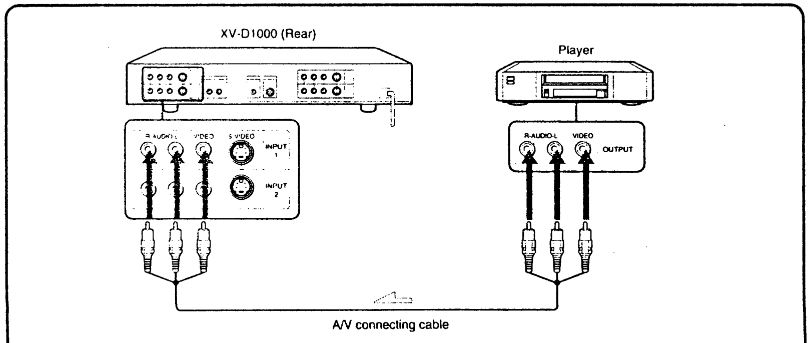
Connecting Players with an S Video Output Jack

Use the supplied S video and A/V connecting cables.



Connecting Players without an S Video Output Jack

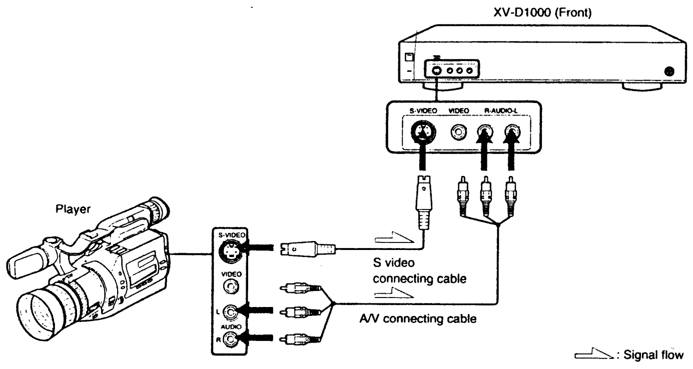
Use the supplied A/V connecting cable.



Do not connect the S-VIDEO input jack of the digital SEG.
Otherwise the video signal will not be input.

Connection 1 — Connecting the Players

Connecting Players to the INPUT 3 Jacks on the Front Panel

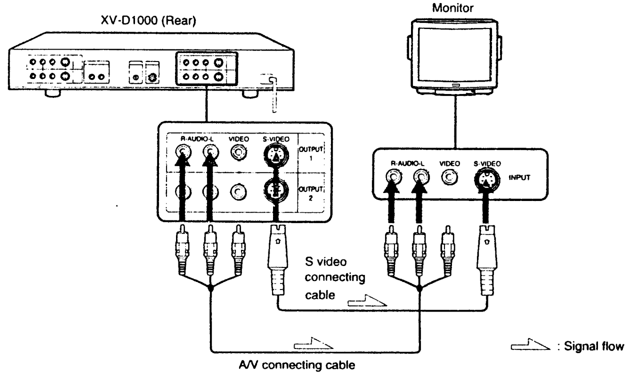

XV-D1000 (Front)
S-VIDEO
VIDEO
R-AUDIO-L
Player
S-VIDEO
VIDEO
L
AUDIO
R
S video
connecting cable
A/V connecting cable
: Signal flow

Do not connect the S-VIDEO input jack of the digital SEG. Otherwise the video signal will not be input.

Connection 2 — Connecting the Monitor

Connect a monitor to the OUTPUT jacks on the rear panel.

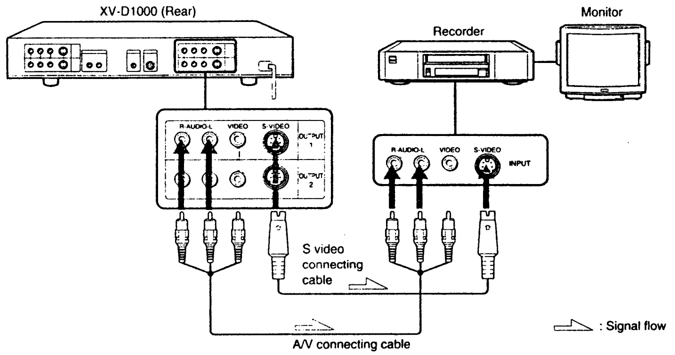
When your monitor does not have an S video jack, connect the VIDEO jacks.


XV-D1000 (Rear)
Monitor
R-AUDIO-L
VIDEO
S-VIDEO
OUTPUT 1
OUTPUT 2
R-AUDIO-L
VIDEO
S-VIDEO
INPUT
S video
connecting
cable
A/V connecting cable
: Signal flow

Connection 3 — Connecting the Recorder

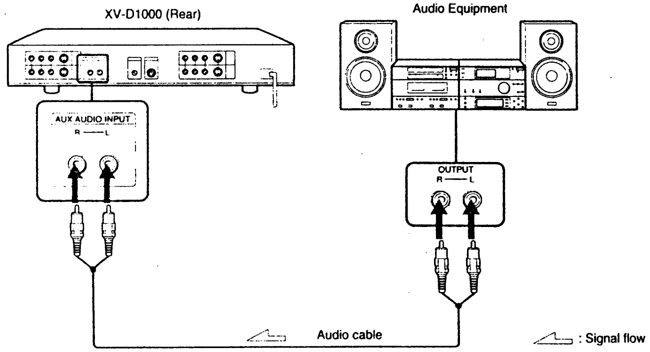
Connect the recorder to the OUTPUT jacks on the rear panel using the recommended connecting cables shown on page 8.

When your recorder does not have an S video jack, connect the VIDEO jacks.


XV-D1000 (Rear)
Recorder
Monitor
R-AUDIO-L
VIDEO
S-VIDEO
OUTPUT 1
OUTPUT 2
R-AUDIO-L
VIDEO
S-VIDEO
INPUT
S video
connecting
cable
A/V connecting cable
: Signal flow

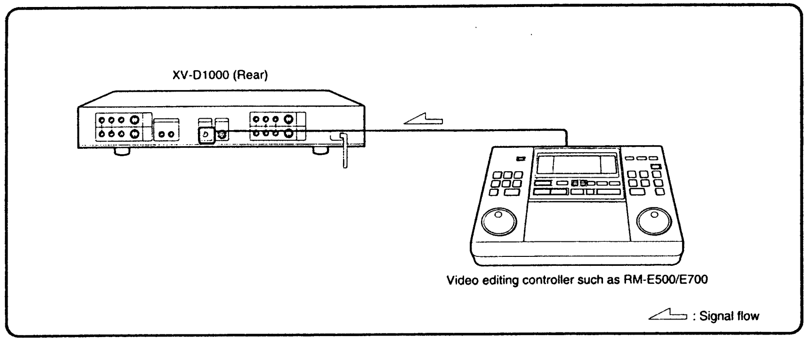
Connection 4 — Connecting an Audio Equipment

Connect the audio equipment to the AUX AUDIO INPUT L/R jacks on the rear panel. Use a proper connecting cable for the equipment.


XV-D1000 (Rear)
Audio Equipment
AUX AUDIO INPUT
R — L
OUTPUT
R — L
Audio cable
: Signal flow

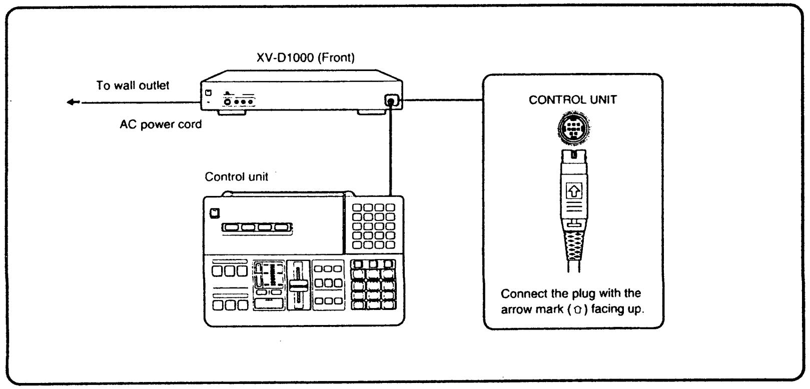
Connection 5 — Connecting an Editing Controller

Connect an editing controller to the GPI INPUT jack on the rear panel. Use a proper connecting cable for the equipment.


XV-D1000 (Rear)
Video editing controller such as RM-E500/E700
: Signal flow

Connection 6 — Connecting the Control Unit and the AC Power Cord

Connect the control unit to the CONTROL UNIT jack on the front panel. Then connect the AC power cord to a wall outlet.


XV-D1000 (Front)
To wall outlet
AC power cord
Control unit
CONTROL UNIT
Connect the plug with the arrow mark (⇧) facing up.

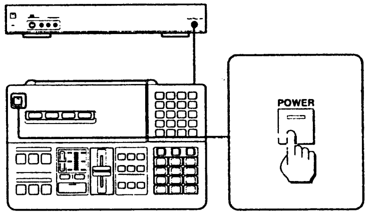
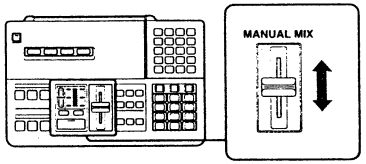
Basic Operations

In this chapter, we explain from turning on the power to switching the images.

Basic Switching Operation

Switching Operation

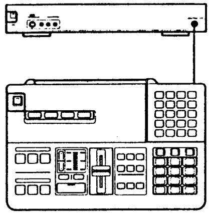
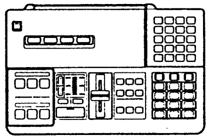
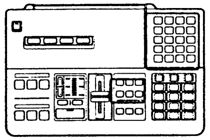
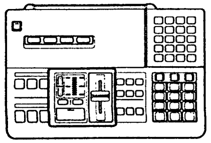
You can switch the images basically as described below. You can select a particular signal (page 16) and switching effect (page 17).

1	**Press the POWER switch to turn on the power.**	
2	**Play back the tapes.**	
3	**Move the switching lever up or down.** The images switches with the overlap effect.	

Basic Switching Operation

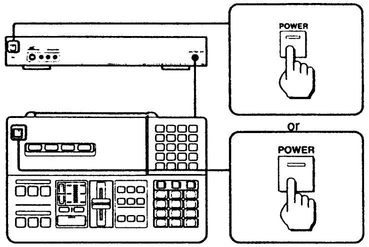
Steps for Switching Images

The steps for switching images are as follows.

1 **Turn on the power. ➡ Page 15**	
2 **Play back the tapes.**	
3 **Select the input signals. ➡ Page 16**	
4 **Select the switching effect. ➡ Page 17**	
5 **Switch the images. ➡ Page 26**	

Turning on the Power

Press the POWER switch of the control unit or the main unit.
The lamp of the POWER switch lights up.
The buttons of the initial condition light up.



When you finish using the digital SEG

Press the POWER switch again.
The lamp of the POWER switch turns off.
The digital SEG enters standby mode and the STANDBY lamp of the main unit lights up.

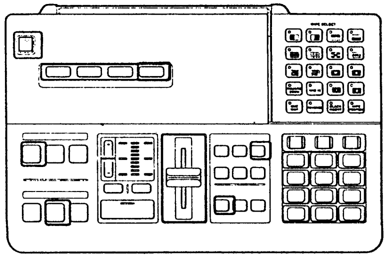
When you will not use the digital SEG for long time

Disconnect the AC power cord. The STANDBY lamp goes out.

On the initial condition

The illustration below shows the buttons which are lit up in the initial condition.

- The LINE A image is the signal input to the INPUT 1 jacks. (To select the signal, see page 16.)
- The LINE B image is the signal input to the INPUT 2 jacks.
- Switch the images while overlapping. (To select the switching effect, see page 18. To select the audio signal, see page 29.)
- Switch the images in manual mode. (To switch in automatic mode, see page 27.)



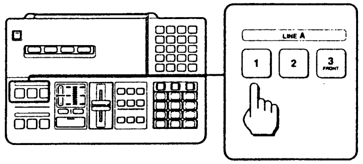
Selecting the Signals

The digital SEG switches the images from the LINE A image to the LINE B image, or from the LINE B image to the LINE A image. Consequently, you must select the signals to be the LINE A and LINE B images.

The numbers (1, 2, 3) of the INPUT select buttons correspond the numbers of the INPUT jacks.
When you turn on the digital SEG, the digital SEG becomes the initial condition.

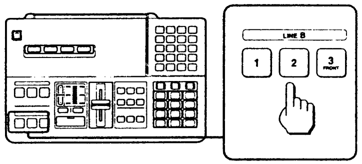
To select the LINE A image

Press the number button of LINE A to turn it on.



To select the LINE B image

Press the number button of LINE B to turn it on.



Notes

- If no signal is input through the jacks you selected, the image of previously selected signal appears frozen. A part of image may be lost. The same happens when the signal input stops such as when you stop the playback or the tape becomes the end.
- You can select the same signal for the LINE A and LINE B images for the following purposes.
  - — To adjust the horizontal center (page 37) and white balance (page 39)
  - — To generate a digital effect to an image when switching the images of same signal
  - — Only 1 player is connected.

Selecting the Switching Effect

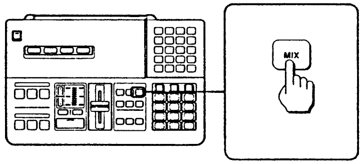
You can enjoy switching the images with the monotone, mosaic, and bit defect effects.
Further, you can fade and wipe the images.
The overlapping duration corresponds to the switching speed.

You may be interested in generating a digital effect such as multi picture and afterimage. These digital effects are explained in the "Advanced Operations" chapter (page 30).

Mixing the Overlapped Images

You can switch the overlapped images.

Press MIX to turn it on.



Note on the MIX SELECT VIDEO and WIPE SELECT buttons

Make sure that the only MIX button of the MIX SELECT VIDEO and WIPE SELECT sections is lit. If another button is lit, the effect of the button is included. To turn off the button, press it.

Selecting the Switching Effect

Mixing the Images with the Switching Effects

You can make the images monotone, mosaic, or bit defect while switching them. The current image takes on the effect and switches to another image. The latter image appears with the selected effect and becomes normal.

Monotone mix

Mosaic mix

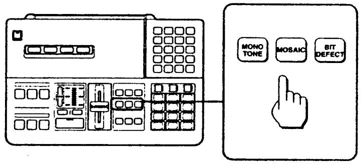
Bit defect mix

Press to turn on the button of the effect you want.
The MIX button also lights automatically.

MONOTONE ...... To make monotone mix

MOSAIC .... To make mosaic mix

BIT DEFECT ...... To make bit defect mix

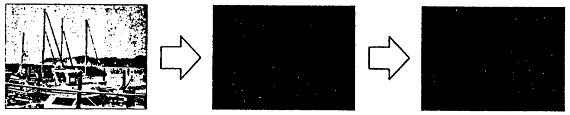


BIT DEFECT image
To digitally process the analog luminance level which is continuous from low to high, the digital SEG encodes the luminance into 256 levels so that the image will look the same and normal as the original when decoded. The 256 levels equal 8 bits of processing circuit. To make the BIT DEFECT image, the digital SEG switches the processing circuit to 4, 3, 2 bits and thereby breaks the luminance level down into 16, 8, and 4 levels.

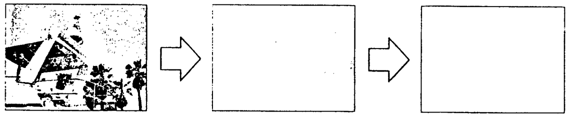
Fading the Image In or Out

You can fade out a image to white or black, and fade in a image from white or black.

White fade



Black fade



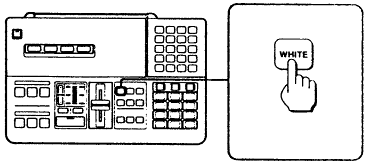
When you select an image using the switching lever with the fading effect, the other image turns into the white or black screen. For example, when you select the LINE A image, the LINE B image turns into the black or white screen.

Notes on the indication

- The INPUT SELECT button of the signal which turns into the black or white screen flashes.
- Check that the image you want is selected by the image position indicator. To select the image, move the switching lever toward the image you want.

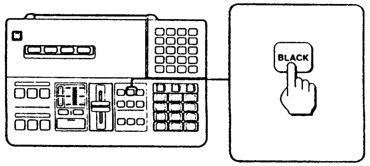
White fade

Press WHITE to turn it on.
Make sure that MIX is lit. If it is not lit, press MIX to turn it on



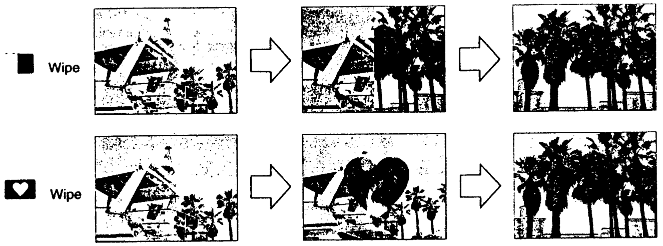
Black fade

Press BLACK to turn it on.
Make sure that MIX is lit. If it is not lit, press MIX to turn it on



Wiping

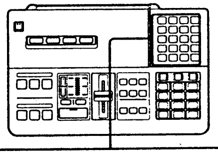
You can switch to another image or black screen by wiping out the current image. Also you can insert an image into another image using some of the WIPE SELECT buttons.

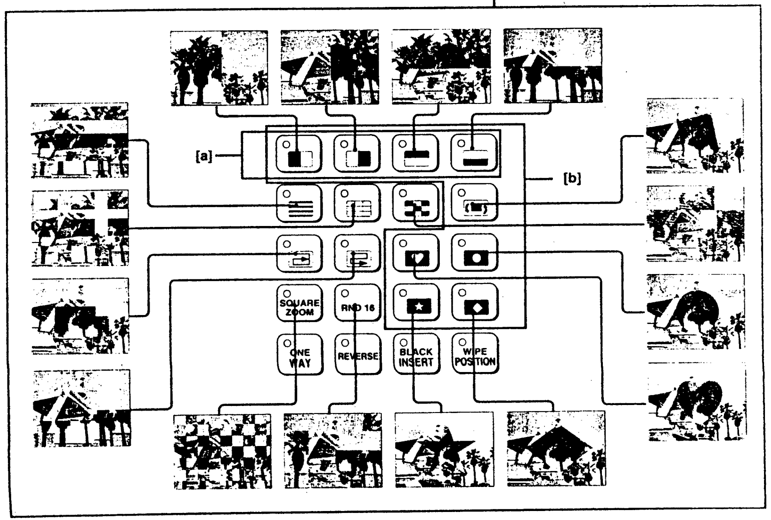


Selecting the Wiping Pattern

Press to turn on the button of the WIPE SELECT section.
How the image is wiped out or inserted is shown below.

[a] You can use these buttons in combination (page 22).
[b] You can insert an image with these buttons (page 23).





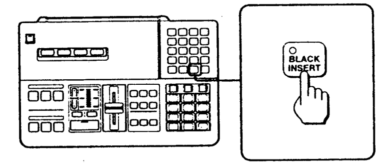
Note to obtain the wiping pattern you want

If another button of the WIPE SELECT section is lit, turn off the button you do not want by pressing it.
If you leave some buttons lit, the wiping will be performed as the combined patterns.
If you press a button which cannot be combined, the pattern of the pressed button replaces the previously lit button.

Supplementary Effect for Wiping

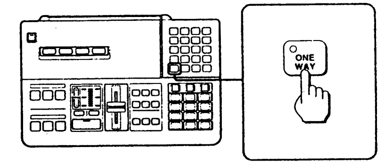
To insert a black portion between the images

Press BLACK INSERT to turn it on.



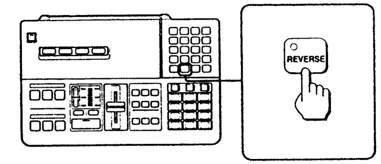
To wipe in the same direction

Press ONE WAY to turn it on.



To reverse the wiping direction

Press REVERSE to turn it on.



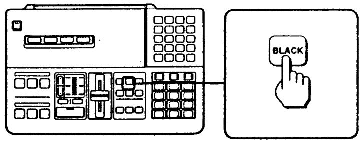
On the REVERSE function
The wiping direction is predetermined for each of the LINE A and LINE B images. When you want to wipe in the opposite direction, press REVERSE.

If the wipe pattern edges or image is distorted
The wipe pattern edges or image may be distorted with some monitors. (This does not affect the recorded image.) The distortion may be reduced by turning down the brightness of the monitor.

To wipe to black screen

Press BLACK to turn it on.

You cannot wipe to white screen.



Notes on the indication

- The INPUT SELECT button of the signal which turns into the black screen flashes.
- Check that the image you want is selected by the image position indicator. To select the image, move the switching lever toward the image you want.

To turn off all the WIPE SELECT buttons

Press MIX of the MIX SELECT VIDEO section.

The Combination of the Wipe Patterns

The 15 wiping patterns are available by combining the patterns of top row.

Example of the wipe patterns

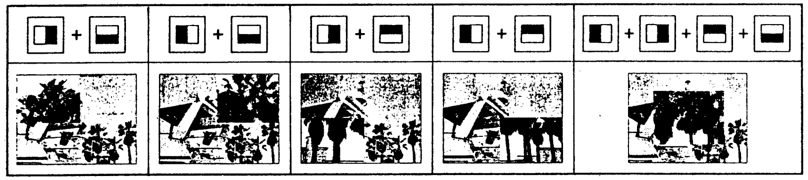


Table of the available wipe patterns

○ ··· Button to be lit

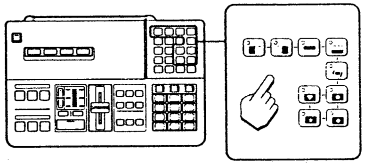
Pattern / Button	◧	◨	⬒	⬓	▣	▣	▣	▣	▣	▣	▣	▣	▣	▣	▣
◧	○				○	○	○				○	○	○		○
◨		○			○			○	○		○	○		○	○
⬒			○			○		○		○	○		○	○	○
⬓				○			○		○	○		○	○	○	○

Inserting an Image into Another Image

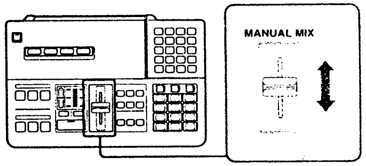
You can insert an image into another image at the position you want.

To insert an image at the center

1 **Select the pattern.**



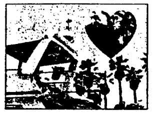
2 **Move the switching lever until the inserted image becomes the size you want.**
The image wipes in from the center.
If you want to change the position of the pattern, see page 24.



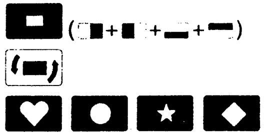
To switch the image
Move the switching lever in the direction which the image you want takes place.

To change the position of the pattern

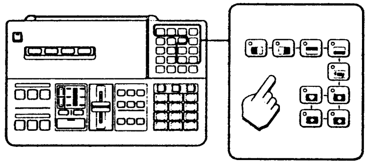
The image wipes in from the center. You can change the position of the image using WIPE POSITION and the 1 to 9 buttons.



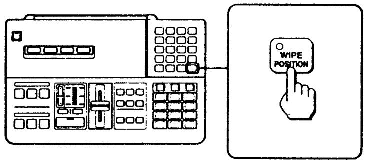
The pattern you can use with WIPE POSITION



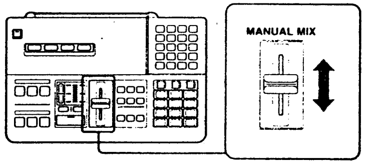
1 **Select the pattern.**



2 **Press WIPE POSITION to turn it on.**
The 1 to 9 buttons light up automatically.



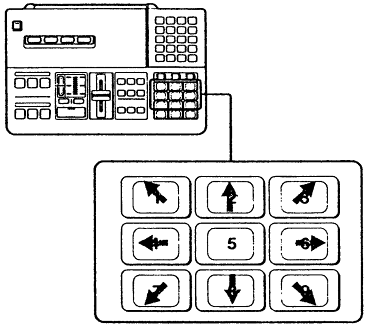
3 **Move the switching lever until the inserted image becomes the size you want.**



4 **Move the pattern by pressing the 1 to 9 buttons.**
To move the pattern continuously, keep the button pressed.

Pressing the each button moves the inserted image:

1 toward top left
2 upward
3 toward top right
4 toward left
5 back to the center
6 toward right
7 toward bottom left
8 downward
9 toward bottom right



If you change the wipe pattern after you set the position
- If you select one of the patterns which can be used with WIPE POSITION, the position does not change.
- If you select a pattern which cannot be used with WIPE POSITION, the pattern appears at the center.

Note on the pattern size

When you turn on or off WIPE POSITION, the pattern size chages.

Note on the position setting

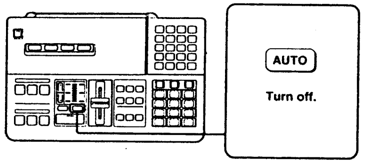
If you want to make the inserted image appear at a particular position, store the position in program memory (page 43).

Switching the Images

After you select the signals for the LINE A and LINE B images, you switch the images manually moving the switching lever up and down.

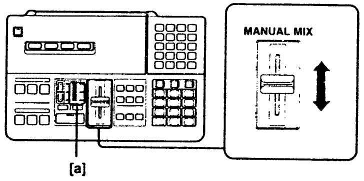
When you want to switch the images in automatic mode, see page 27.

1 **Make sure that the AUTO button is not lit. If it is, press AUTO to turn it off.**



2 **Move the switching lever when you want to switch the images.**
As you move the switching lever, the images switches from LINE A to LINE B or from LINE B to LINE A.
To switch the images slowly, move the switching lever slowly.
To switch the images quickly, move the switching lever quickly.

[a] The indicator lights up showing how far the switching of the images has proceeded.



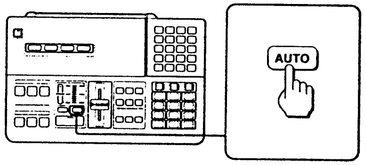
Advanced Operations

In this chapter, we explain:
- how to switch the images in automatic mode
- how to select an audio signal
- how to generate a digital effect
- how to adjust the the video picture and audio volume
- how to store and use the effect program in memory
- about controlling the digital SEG from editing controller
- about the other functions available with the OPTION button.

Switching the Images in Automatic Mode

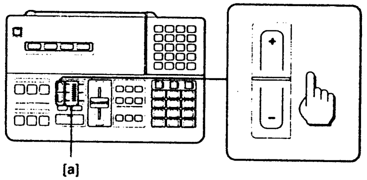
Once you set the digital SEG in automatic mode, you only need to press the START button to switch the images.

1 **Press AUTO to turn it on.**
The digital SEG enters automatic mode.



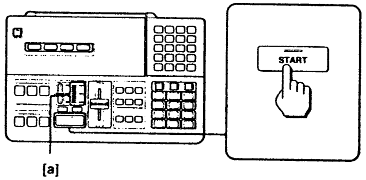
2 **Press + or – to set the switching speed.**
"+" to make the switching speed fast.
"–" to make the switching speed slow.

[a] The indicator lights up showing the speed level you set.



3 **Press START when you want to switch the images.**
The image switches from one to another with the effect you selected.

[a] The indicator lights up showing how far the switching of the images has proceeded.



Note on the SPEED/POSITION indicator

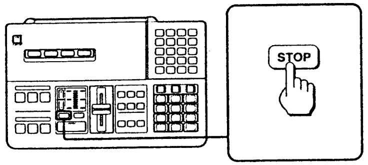
When you set the switching speed, the indicator shows the speed level. When you switch the images, it shows the image position.

Switching the Images in Automatic Mode

To stop while switching the images

Press STOP.

When the images switches from LINE A to LINE B, the LINE B of the POSITION lamp and the START button flash.
When the images switches from LINE B to LINE A, the LINE A of the POSITION lamp and the START button flash.
To resume switching, press START.



To return to manual switching mode
Press AUTO to turn it off.

Note

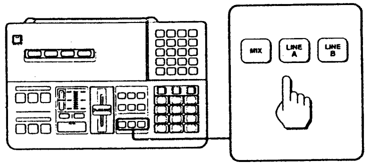
If you move the switching lever several times in auto mode, the digital SEG enters manual mode.

Selecting the Audio Signal

When you turn on the digital SEG, the MIX button of the MIX SELECT AUDIO section lights up and the sound switches as the image switches.

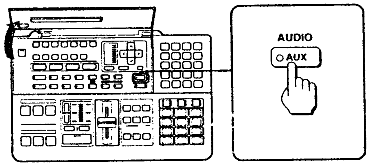
Press to turn on the button of the MIX SELECT AUDIO section.

MIX ....To switch the sound of the LINE A and LINE B signals as the image switches.
LINE A ···To keep the sound of the LINE A image regardless of the image switching.
LINE B ···To keep the sound of the LINE B image regardless of the image switching.



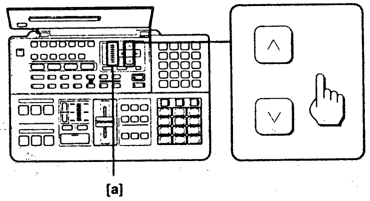
To mix with the sound of audio equipment

1 **Press AUDIO AUX under the cover to turn it on.**
The ∧ and ∨ buttons also light up.



2 **Adjust the balance by pressing ∧ or ∨ .**
∧ to increase the volume of the audio equipment.
∨ to increase the volume of the LINE signal.

[a] The indicator shows the adjustment level.



To return to the initial condition
Press RESET.

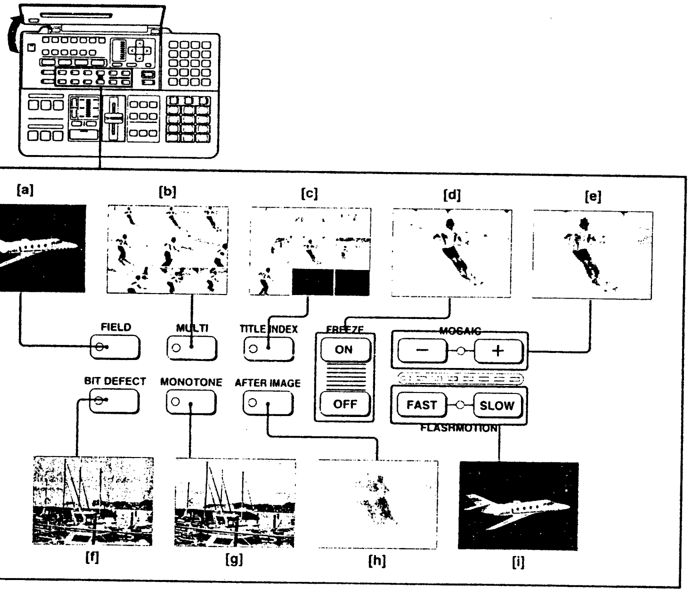
Note

You can store the AUDIO AUX adjustment in an A/V ADJ. MEMORY button. See page 41 for storing operation.

Generating the Digital Effect

You can change the appearance of either one image or both images by generating digital effects such as mosaic, multi-picture and afterimage using the DIGITAL EFFECT buttons under the cover. You can combine some effects.

The Digital Effects You Can Generate



[a] FIELD effect
The image becomes the field picture.

[b] MULTI (multi picture) effect
The screen is divided into 9 screens.

[c] TITLE INDEX effect
When you press TITLE INDEX, the screen is divided into 9 screens, but an image appears only in the top left screen. Press TITLE INDEX when you want the image to stop. The image in the first screen becomes still and the playback image appears in the next screen. Each time you press TITLE INDEX, the image in the screen becomes still and the playback image appears in the following screen.

[d] FREEZE effect
To freeze the image, press ON.
Press again to freeze another image.
To return to the normal image, press OFF.

[e] MOSAIC effect
To make the mosaic pieces larger, press + until the mosaic pieces becomes the size you want.
To make the mosaic pieces smaller, press – until the mosaic pieces become the size you want.

[f] BIT DEFECT effect
The image becomes bit-defected. (See page 18.)

[g] MONOTONE effect
The image becomes monotone.

[h] AFTERIMAGE effect
The afterimage effect is generated.

[i] FLASHMOTION effect
To make the flashing intervals faster, press FAST until the intervals become as fast as you want.
To make the flashing intervals slower, press SLOW until the intervals become as slow as you want.

Note on the image you can generate a digital effect

It is not possible to generate a digital effect to the LINE A image and a different digital effect to the LINE B image.

Note on the MULTI, TITLE INDEX, MOSAIC and FLASHMOTION

When you select the MULTI, TITLE INDEX, MOSAIC, and FLASHMOTION effects, the field image is used and the FIELD button lights up automatically. You cannot obtain these effects with the frame image.

When using the MULTI and TITLE INDEX

The image may become noisy.

When using the MULTI and TITLE INDEX with the wipe patterns

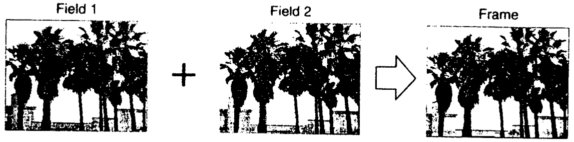
You cannot exactly align the frames of MULTI and TITLE INDEX images with the wipe patterns. To align them as close as possible, adjust the horizontal center and move the images (page 37).

What is a "field"?

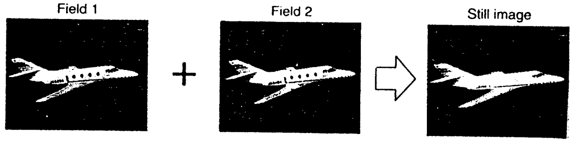
The image you usually see on a TV or monitor is called a "frame".
The "frame" is made of two pictures called "fields" **[a]**.
When a scene has lots of movement, the two fields of the frame are different from each other. Consequently, if the frame is used as the still image, you will see a double image **[b]**.

By making a still image of the field, you can obtain a stable image without a double image, though the image quality becomes slightly rough **[c]**.

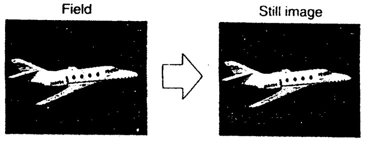
[a] Usual image



[b] Still image made of a frame



[c] Still image made of a field



Generating the Digital Effect on a Signal

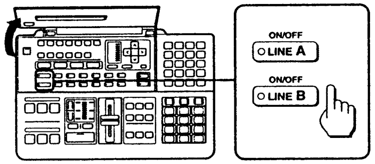
1 **Press to turn on the button of the image to select the image.**

LINE A ··············· To generate an effect on the LINE A image.

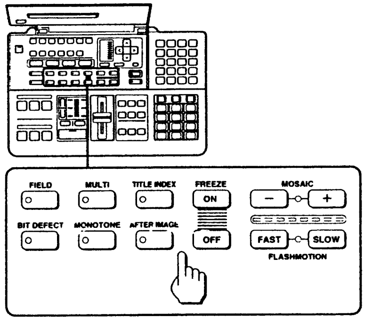
LINE B ··············· To generate an effect on the LINE B image.

LINE A and LINE B ···· To generate an effect on both images.

When you do not want to generate the effect on the image, press the button to turn it off.

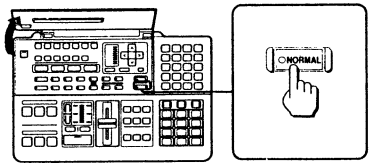

ON/OFF
LINE A
ON/OFF
LINE B

2 **Press the button of the effect you want.**


FIELD
MULTI
TITLE INDEX
FREEZE
MOSAIC
−
+
ON
BIT DEFECT
MONOTONE
AFTER IMAGE
OFF
FAST
SLOW
FLASHMOTION

To return to the normal image

Press NORMAL.



The Digital Effects You Can Use in Combination

The table below shows the effects you can use in combination.

○ ···· You can use in combination.

× ···· You cannot use in combination. The effect of the button you pressed later takes place.

Button lit / Button to be pressed	Field				Field or Frame			
	MOSAIC	MULTI	TITLE INDEX	FLASH-MOTION	FREEZE	BIT DEFECT	MONOTONE	AFTER-IMAGE
MOSAIC		×	×	○	○	○	○	×
MULTI	×		×	○	×	○	○	×
TITLE INDEX	×	×		○	×	○	○	×
FLASHMOTION	○	○	○		×	○	○	○
FREEZE	○	○	○	×		○	○	×
BIT DEFECT	○	○	○	○	○		○	○
MONOTONE	○	○	○	○	○	○		○
AFTERIMAGE	×	×	×	○	×	○	○	

To change the speed of the multi picture motion

1 **Press MULTI to turn it on.**

2 **Adjust the speed by FLASHMOTION FAST/SLOW.**

Adjusting the Video Picture and Audio Volume

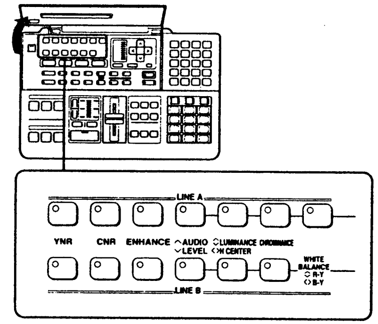
You can adjust the video picture and audio volume of the LINE A and LINE B signals independently. By storing the adjustment in the A/V adjustment memory, you can recall the adjustment with one push of the A/V ADJ. MEMORY button.

Note

Before you start adjusting, make sure that you display the signal you want to adjust on the monitor.

The buttons to adjust the video picture and audio volume

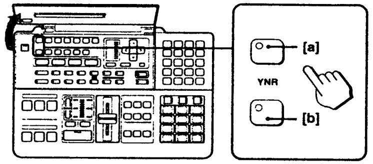
The buttons of the upper row are for adjusting the LINE A signal, and those of the lower row are for adjusting the LINE B signal.



Reducing the Luminance Noise

Luminance noise will be reduced.

Press YNR to turn it on.
To return to the normal image, press YNR to turn it off.

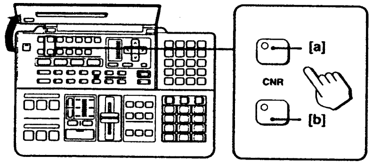


[a] For LINE A image
[b] For LINE B image

Reducing the Chrominance Noise

The color variance will be reduced.

Press CNR to turn it on.
To return to the normal image, press CNR to turn it off.

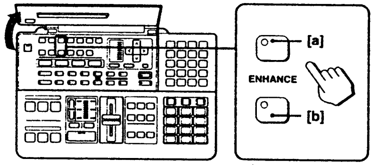


[a] For LINE A image
[b] For LINE B image

Enhancing the Contours

The contours will become sharp.

Press ENHANCE to turn it on.
The return to the normal image, press ENHANCE to turn it off.



[a] For LINE A image
[b] For LINE B image

Note on the YNR, CNR and ENHANCE adjustments

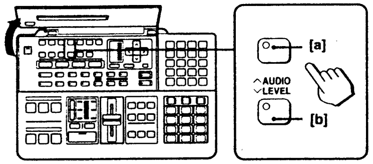
You may not be able to recognize the effect of the adjustment with some images.

Adjusting the Audio Volume

You can adjust the audio volume of the LINE A and LINE B signals.

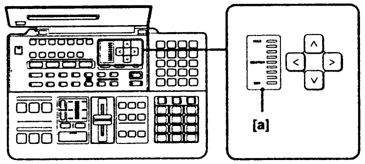
1 Press AUDIO LEVEL to turn it on.
The ∧ and ∨ buttons light up automatically.

[a] For LINE A image
[b] For LINE B image



2 Adjust the volume by pressing ∧ or ∨ .
∧ ·····to increase the volume.
∨ ·····to decrease the volume.

[a] The indicator shows the adjustment level.

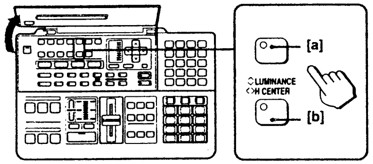


Adjusting the Luminance

If the luminance level is unsatisfactory, make this adjustment.

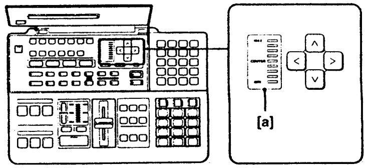
1 Press LUMINANCE/H CENTER to turn it on.
The ∧ and ∨ buttons light up automatically.

[a] For LINE A image
[b] For LINE B image



2 Adjust the luminance level by pressing ∧ or ∨ .
∧ ·····to increase the luminance level.
∨ ·····to decrease the luminance level.

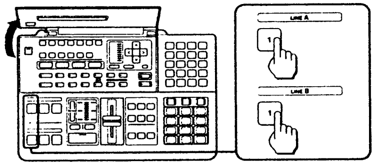
[a] The indicator shows the adjustment level.



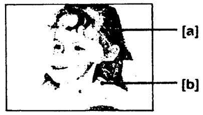
Adjusting the Horizontal Center

If the image appears off the center in the horizontal direction, make this adjustment.

1 Select the same signal for the LINE A and LINE B images.
For example, select the signal input to the INPUT 1 jacks.



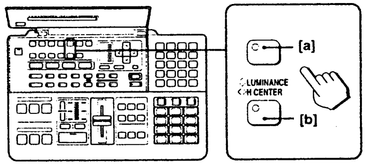
2 Mix the LINE A and LINE B images using the ⬓ wipe pattern (page 20).



[a] LINE A image
[b] LINE B image

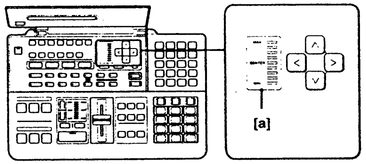
3 Press LUMINANCE/H CENTER.
The ∧ and ∨ buttons light up automatically.

[a] For LINE A image
[b] For LINE B image



4 Adjust the horizontal center by pressing < or > .
< ·····To move the image towards the left
> ·····To move the image towards the right

[a] The indicator shows the adjustment level.

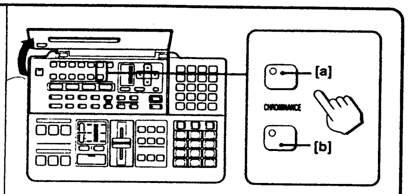


Adjusting the Color Intensity (Chrominance)

If the color intensity is unsatisfactory, make this adjustment.

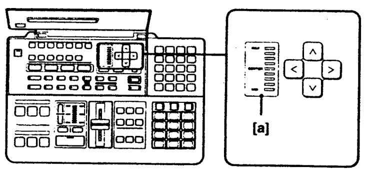
1 **Press CHROMINANCE to turn it on.**
The ∧ and ∨ buttons light up automatically.

[a] For LINE A image
[b] For LINE B image



2 **Adjust the color intensity by pressing ∧ or ∨ .**
∧ ····For more color intensity
∨ ····For less color intensity

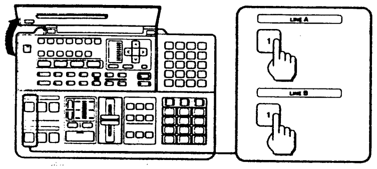
[a] The indicator shows the adjustment level.



Adjusting the White Balance

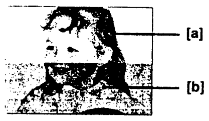
If the color balance of the image is incorrect, make this adjustment. You adjust the white balance of the LINE A signal to that of the LINE B signal.

1 **Select the same signal for the LINE A and LINE B images.**
For example, select the signal input to the INPUT 1 jacks.

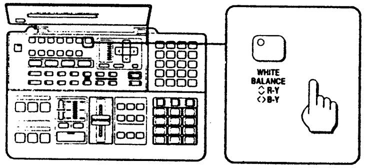


2 **Mix the LINE A and LINE B image using one of the wipe patterns of the top row (page 20).**

[a] LINE A image
[b] LINE B image

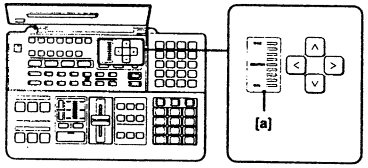


3 **Press WHITE BALANCE to turn it on.**
The ∧ and ∨ buttons light up automatically.



4 **Adjust the white balance of the LINE A image to that of the LINE B image.**
∧ ·····To make the white more reddish
∨ ·····To make the white less reddish
< ·····To make the white less pale
> ·····To make the white more pale

[a] The indicator shows the adjustment level.

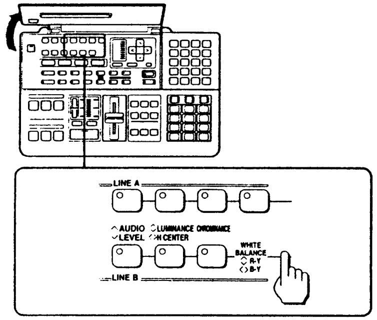


Restoring the Initial Condition

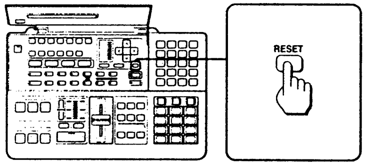
You can reset an individual item or all items to the initial condition.

To reset an individual item

1 **Press to turn on the button of the item you want to reset.**

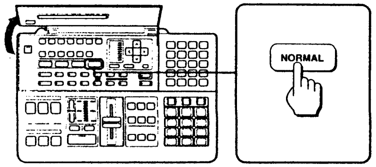


2 **Press RESET.**
The item you selected is reset to the initial condition.



To reset all items

Press NORMAL of the A/V ADJ. MEMORY section.
The video and audio you adjusted are reset to the initial condition.



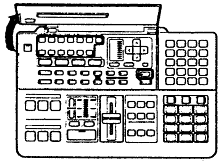
Storing the Adjustment in the Memory

You can store up to 3 sets of combination of several adjustment items in A, B and C of A/V ADJ. MEMORY buttons.
The A/V adjustment memory function enables you to adjust the image of a certain scene with one push of the A/V ADJ. MEMORY button.

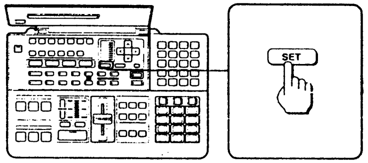
Note

If you store other adjustment in the same A/V ADJ. MEMORY button, the previous memory is erased.

1 **Adjust the items you want to store together.**
The illustration on the right shows the buttons you can use for the A/V adjustment memory.

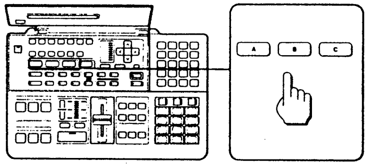


2 **Press SET to turn it on.**

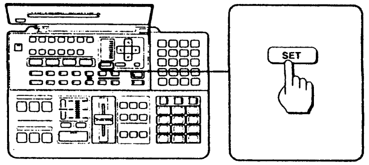


3 **Press the A/V ADJ. MEMORY button you want to store the adjustment in.**
The button flashes.

To cancel storing, press any button except SET, DEL, A, B, and C.



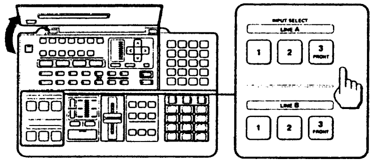
4 **Press SET to turn it off.**
The button you pressed in step 3 lights up and the adjustment you made in step 1 is stored in the button.
To store other adjustment, repeat the steps from 1 to 4.



Adjusting the Video Picture and Audio Volume

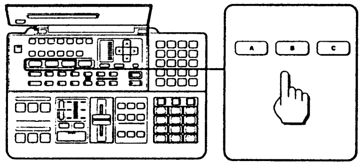
Recalling the A/V adjustment memory

1 **Select the signal you want to generate the adjustment.**



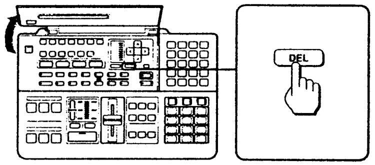
2 **Press the A/V ADJ. MEMORY button of the adjustment you want to recall.**

To check the adjustment level
Press the button of the item you want to check. The indicator lights up showing the adjustment level of the item.



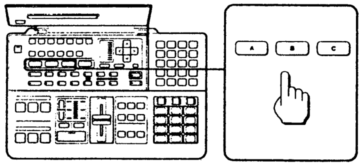
To delete the A/V adjustment memory

1 **Press DEL to turn it on.**

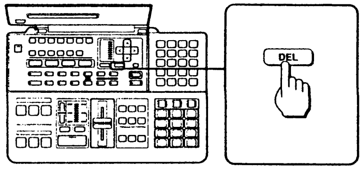


2 **Press the A/V ADJ. MEMORY button you want to delete.**
The button flashes.

To cancel deleting, press any button except SET, DEL, A, B, and C.



3 **Press DEL to turn it off.**
The flashing button turns off and the adjustment memory in the number is deleted.



Storing the Effects in the Program Memory

You can store combinations of effects in the PROGRAM MEMORY 1 to 10 and the START MEMORY buttons. The digital SEG executes the combination of the effects when you press the program number button to recall. To include the video/audio adjustment in the program memory, you need to store them in the A/V ADJ. MEMORY buttons in advance.

Steps for the program memory feature

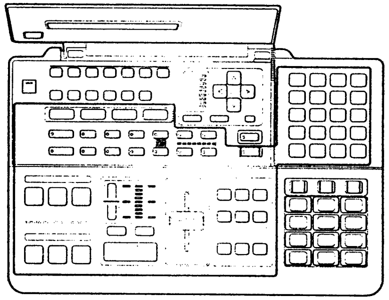
To use the program memory feature, you need to perform the following three steps.

1 **Make a combination of effects. ➡ Page 44.**

2 **Store the combination of effects in the PROGRAM MEMORY button. ➡ Page 45.**

3 **Recall and execute the program memory while you are editing or watching video. ➡ Page 46.**

The buttons you can use for the program memory



Notes on programing

- If you store another program memory in the same button, the previous program memory is erased.
- The digital SEG memorizes the program in the form of the final destination which is the condition indicated by the lighting buttons. If the image on the monitor is in the same condition as the final destination, the image will not change even if you execute the program.
- We recommend that you store programs in the buttons in numerical order to avoid recalling wrong program memory. If you recall program memories sending a GPI signal from an editing controller (page 52), the program memories are recalled in numerical order of the PROGRAM MEMORY number buttons.

Storing the Effects in the Program Memory

Example

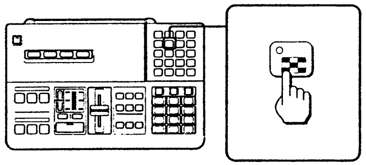
We explain how to use the program memory function with this example. Follow the steps for trial.

- Switch from LINE A to LINE B using the ⊠ wipe pattern.
- Generate the MULTI, BIT DEFECT and MONOTONE effects on LINE B.

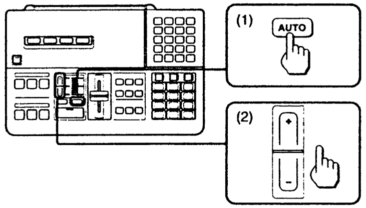
- Store in the PROGRAM MEMORY 1 button.
- Recall this program memory.

Step 1 — Making a Combination of Effects

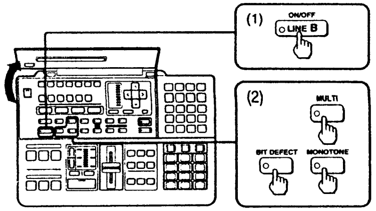
1 **Select a switching pattern.**
Press ⊠ to turn it on.



2 **Adjust switching speed.**
(1) Press AUTO to turn it on.
(2) Set the speed.
See page 27 for details.

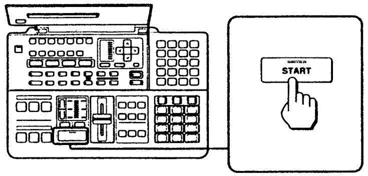


3 **Select the digital effects.**
(1) Select the image.
(2) Press to turn on the digital effect buttons.



4 **Select the image you want to switch to.**
Press START to turn on the LINE B lamp.

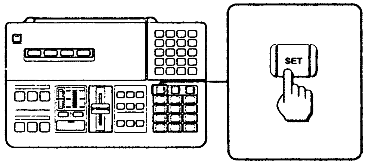
If AUTO is turned off
Move the switching lever to the LINE B side.



Step 2 — Storing the Combination of Effects

After you make a combination of effects, store it in a PROGRAM MEMORY number button.

1 **Press SET to turn it on.**
The program number buttons which have a program light up.

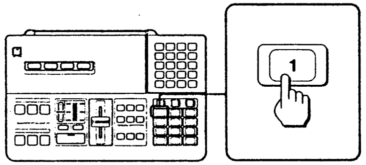


2 **Press a PROGRAM MEMORY number button.**
The program number button you pressed flashes.

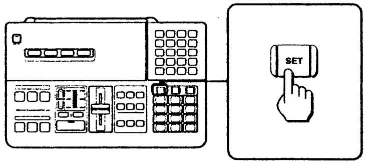
Note

If you store another program in the same button, the previous program memory is erased.

To cancel storing, press any button except the buttons of the PROGRAM MEMORY section.



3 **Press SET to turn it off.**
The program number buttons turn off and the program is stored in the program number button you pressed.

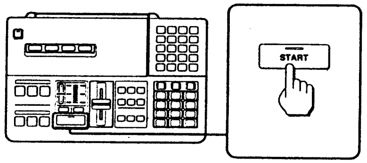


Step 3 — Recalling a Program Memory

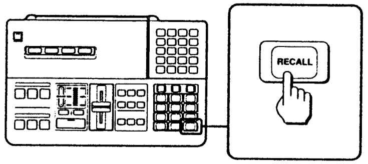
While editing or watching video, you can recall the program memories you have stored. The digital SEG executes the program memory when you press the program number button.

1 **Select the image you want to switch from.**
Press START to turn on the LINE A lamp.

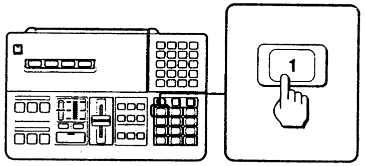
If AUTO is turned off
Move the switching lever to the LINE A side.



2 **Press RECALL to turn it on.**
The program number buttons which have a program memory light up.



3 **Press the PROGRAM MEMORY number button.**
The digital SEG executes the program memory stored in the button.
If you press a program number button which has no program memory, the button flashes.



To execute other program memories in sequence
Make sure that the RECALL button is turned on and press the program number buttons.

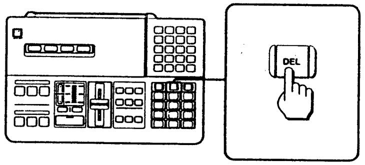
When you finish recalling the program memories
Press RECALL to turn it off.

Notes

- The digital SEG executes the program memory when you press a program number button. If you press a program number button while the digital SEG is executing another program memory, the digital SEG starts executing the program memory of the newly pressed button.
- If you recall a program memory which has a wipe pattern position (WIPE POSITION) setting, the wipe pattern immediately appears where you set. The wipe pattern moves on the screen differently from when you set the wipe position using the number buttons.

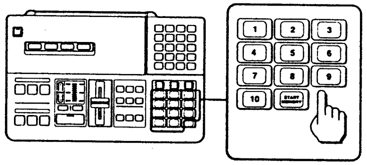
To delete a program memory

1 **Press DEL to turn it on.**
The program number and START MEMORY buttons which have a program memory light up.

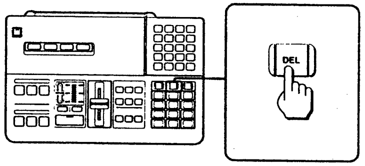


2 **Press the program number and START MEMORY button you want to delete.**
The button flashes.

To cancel deleting, press any button except the buttons of the PROGRAM MEMORY section.



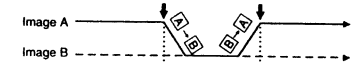
3 **Press DEL to turn it off.**
The program number and START MEMORY buttons turn off and the program in the button which has been flashing is deleted from the memory.



Take care which POSITION lamp (LINE A or LINE B) is turned on when you recall a program memory.
To switch the images using the program memory, you need to select the correct image to be switched from.

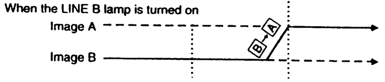
Example
Program memory 1 — The images are to be switched from LINE A to LINE B.
Program memory 2 — The images are to be switched from LINE B to LINE A.

When the LINE A lamp is turned on



Because the correct image is selected, the effect of the program memories 1 and 2 are visible.

When the LINE B lamp is turned on



Because the wrong image is selected, the effect of the program memory 1 is not visible.

If you store a condition before you recall program memories in START MEMORY, you can avoid such errors.

Using the START MEMORY Button

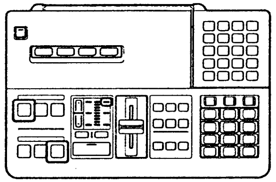
Use the START MEMORY button to store the setting of the digital SEG that you use frequently. If you store the image to be switched from, the images will be switched by the program memory as you intended.

Example

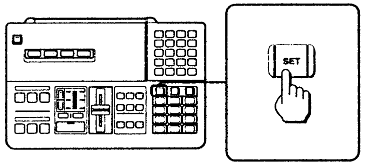
You connect a VTR to the INPUT 1 jacks and a camcorder to the INPUT 3 jacks. The images switch from LINE A to LINE B.

- Select the signal 1 for the LINE A image.
- Select the signal 3 FRONT for the LINE B image.
- Select the LINE A image position.

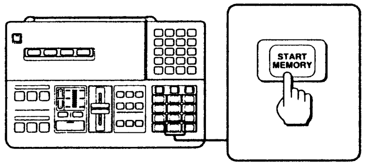
1 **Make the setting or combination of effects.**



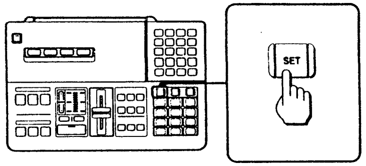
2 **Press SET to turn it on.**
The program number and START MEMORY buttons which have a program light up.



3 **Press START MEMORY.**
The START MEMORY flashes.



4 **Press SET.**
The buttons turn off and the setting or combination you made is stored in START MEMORY.



Hint for Using the Program Memories in Combination

You can make the program memory 2 adding a combination of effects to the program memory 1. In this way, you may accumulate the effects to make the other program memories.

Example of the program memories

Program memory 1

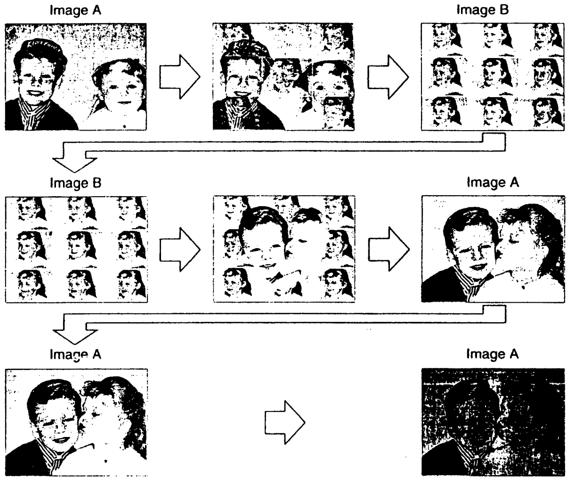
wipe + digital effects

Program memory 2

wipe

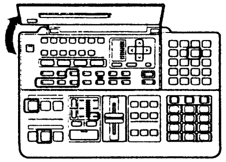
Program memory 3

White balance adjustment stored in A/V ADJ. MEMORY A



Before you make program memories, store the initial condition or the condition of a frequently used setting in the START MEMORY button. In the above example, the image may look unnatural because you adjust the white balance for the program memory 3.

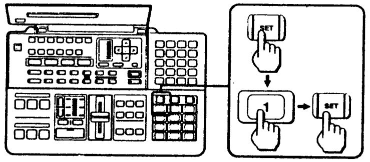
1 **Make the combination of the effects for program memory 1.**



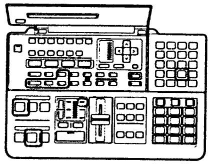
to be continued

Storing the Effects in the Program Memory

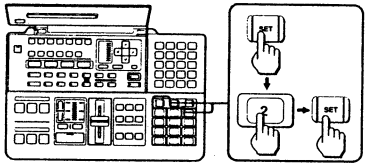
2 Store in PROGRAM MEMORY 1.



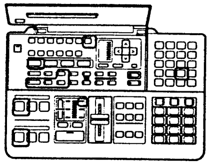
3 Make the combination of the effects for program memory 2.



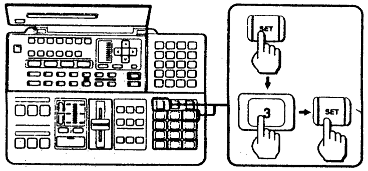
4 Store in PROGRAM MEMORY 2.



5 Make the combination of the effects for program memory 3.

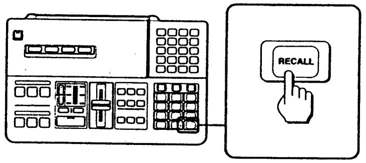


6 Store in PROGRAM MEMORY 3.

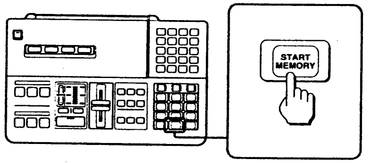


Recalling the Program Memories in Sequence

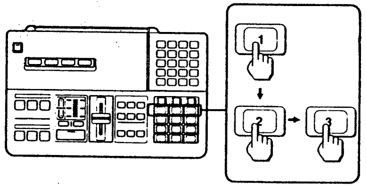
1 **Press RECALL to turn it on.**
The program number and START MEMORY buttons which have a program light up.



2 **Press START MEMORY.**



3 **Press the program number buttons when you want to execute the program memory.**



Note

The digital SEG executes a program when you press a program number button. If you press a program number button while the digital SEG is executing another program, the digital SEG starts the program of the newly pressed button.

Operating from Editing Controller

You can execute the program memories stored in the digital SEG from an editing controller having a GPI or EDIT I/F output jack such as a Sony RM-E500/E700 Video Editing Controller (not supplied).
The EDIT I/F jack is provided for future system expansion.

Notes on the EDIT I/F

- When the EDIT I/F is under control, the EDIT I/F indicator of the front panel of the main unit lights up.
- When the EDIT I/F is connected, you cannot control the digital SEG with the GPI signal.

Using Editing Controller Having a GPI Output Jack

Connect an editing controller having a GPI output jack to the GPI input jack of the digital SEG.
You can output the GPI signal* from the editing controller to call up and execute the program memories stored in the digital SEG in numerical order. You cannot change the order of the program memories.

* The GPI signal is the signal output from a video editing controller (RM-E500/E700 in this case) to control external equipment (XV-D1000 in this case) other than the video recorder/player.

To execute the program memories using the GPI signal

1 **Press RECALL to turn it on.**
The program number and START MEMORY buttons which have a program memory light up.

2 **Send the GPI signal from the editing controller.**
Each time you send the GPI signal, the digital SEG executes a program memory in numerical order from 1 to 10 repeatedly.
The number button of the program being executed flashes.
The program numbers with no programs are skipped.
The START MEMORY program is not executed.

To switch the images using the GPI signal

1 **Press RECALL to turn it off.**

2 **Press AUTO to turn it on.**

3 **Send the GPI signal from the editing controller.**
Each time you send the GPI signal, the digital SEG switches the images.

When the START MEMORY button is lit
The digital SEG executes the program memories in numerical order from 1 to 10 repeatedly.

To start from a particular program memory
Press the lighting program number button ahead of the program memory you want.
For example, to start from program number 3, press "2". The "2" button flashes and the program number 3 is executed when you send the GPI signal.

To return to the program memory 1 before all program memories are executed
Press RECALL to turn it off, then press again to turn it on.

If no PROGRAM MEMORY buttons other than the RECALL button are lit
Nothing happens even if you send the GPI signal.

What You Can Do with the Digital SEG

The XV-D1000 Digital SEG (Special Effects Generator) offers you the enjoyment of processing video images while watching or editing a video. You can switch from one image to another with effects such as overlap and wipe. And you can generate digital effects such as multi-picture, title index, afterimage and mosaic. In addition, you can make a program combining several effects so that you can generate those effects with one push of a button.
The photographs below show some of the effects available with this digital SEG.

Mix with overlap (p.17)

Mix with mosaic (p.18)

Black fade (p.19)

Wipe (p.20)

Wipe (p.20)

Multi-picture
(p.30)

Title index picture
(p.30)

Afterimage picture
(p.30)

Mosaic picture
(p.30)

You can take a look at the main effects on the monitor by using the demonstration of the option functions. See page 53 for the operation.

Option Functions

Some of the number buttons are assigned to option functions as described below. Activate the function you want by turning the button on in option function mode.

Button	Function	Remarks
1	To demonstrate the effects generated by the digital SEG.	• OPTION lights up and 1 flashes during the demonstration. • The demonstration starts after a few seconds when you turn on the power. • To stop the demonstration, press any button of the control unit. • As long as you do not cancel the demonstration function, the digital SEG demonstrates the main effects each time you turn on the power. • The demonstration may stop if you move the switching lever several times.
2*	To rehearse the stored program memories	The digital SEG executes the stored program memories once in numerical order starting from 1 .
3	The A/V adjustment memory in a program memory is not executed when you recall the program memory.	• The image condition becomes the setting of the A/V adjustment section. • Use this function when you change the player, and the A/V adjustment for the previous player is not effective.
4	When you turn on the power, the digital SEG enters the same condition as when it was set to standby.	• If you disconnect the AC power cord, the digital SEG enters initial condition when you connect the AC power cord again. • If there is power interruption, the digital SEG enters initial condition when power interruption is recovered.
5	To mute the beep when you press a button	The warning beeps are also muted.
6	To switch to a brighter white fader	The white level is 100 % at ON, and 75 % at OFF.
10*	To delete all A/V adjustment and program memories	You cannot recover the deleted memories.
START MEMORY	When you connect the AC power, the digital SEG is turned on, recalls and executes the START MEMORY program.	• The function is not effective when no program is stored in the START MEMORY button. • The function is convenient when you connect the digital SEG to the interlocking outlet of an equipment. • The digital SEG starts operation when the power interruption is recovered.

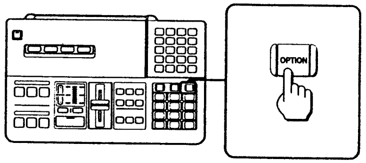
7, 8 and 9 are not used.

* The digital SEG executes the 2 and 10 functions only once when you set them to activate. The setting is released when the digital SEG executes the function.

Option Functions

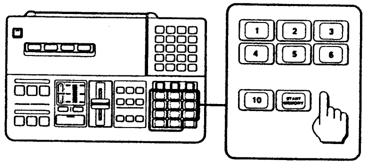
Activating the Functions

1 **Press OPTION to turn it on.**
The number buttons which have option functions and are already activated light up.

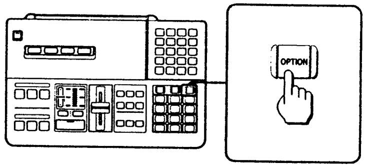


2 **Press to turn on the number button of the function you want to activate.**

To cancel the setting, press any button except the OPTION and number buttons.



3 **Press OPTION to turn it off.**



To cancel the function

1 **Press OPTION to turn it on.**

2 **Press to turn off the button of the function you want to cancel.**
To cancel the setting, press any button except the OPTION and number buttons.

3 **Press OPTION to turn it off.**

Precautions

On safety

- Do not open the cabinet. Refer servicing to qualified personnel only.
- Should any liquid or solid object fall into the cabinet, disconnect the power source and have the unit checked by qualified personnel before operating it any further.

On power sources

- The nameplate indicating operating voltage, power consumption, etc., is located on the rear panel of the main unit.
- Operate the digital SEG on the specified voltage only.

On installation

- Allow adequate air circulation to prevent internal heat buildup.
- Do not install the unit near heat sources such as a radiator or air duct, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On cleaning

Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent such as alcohol or benzine which may damage the finish.

On transportation

Do not throw away the carton and packing materials. They make an ideal container in which to transport the units. When shipping the units to another location, repack it as illustrated on the carton.

Caution

Television programs, films, video tapes and other materials may be copyrighted. Unauthorized recording of such material may be contrary to the provisions of the copyright laws.

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GPI 52
H CENTER 37
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WHITE fade 19
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WIPE POSITION 24
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Sony Corporation Printed in Japan

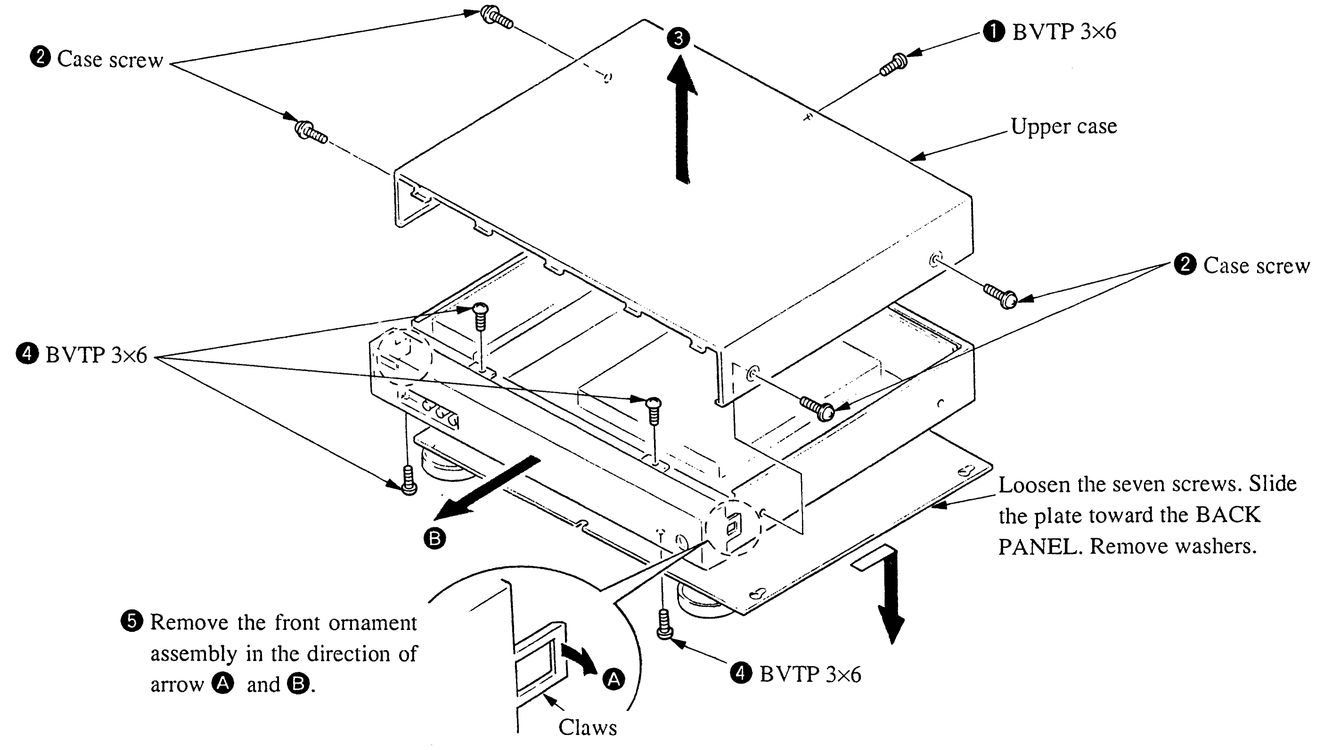
Troubleshooting

Symptom	Cause and countermeasures
No buttons of the control unit turn on even if you press the POWER switch.	• Check the power connection. • Connect the control unit to the main unit correctly.
The images switch or a digital effect is generated when you turn on the power.	The demonstration function is activated. To stop the demonstration, press any button of the control unit. To cancel the demonstration function, see page 54.
The digital SEG starts operation when you connect the AC power. It should enter standby mode.	The START MEMORY function is activated. To cancel the function, see page 54.
No picture	• Turn on the power • Connect the players and the monitor to the digital SEG correctly. • Play back the tapes.
The signal input to the video jack does not appear.	If you connect both the S video and video plugs to the same INPUT connectors, the S video signal is selected. Disconnect the S video plug.
Wrong image	Press the INPUT SELECT button of the signal you want (page 16).
The image is frozen.	• Check the tape in the player. • You pressed an INPUT SELECT button to select the input jack which no signal is input to.
Unsatisfactory image quality	Adjust the video picture (page 34).
Wrong sound	Press the MIX SELECT AUDIO button of the signal you want (page 29).
Unsatisfactory sound volume	Adjust the volume level (page 36).
The images switch too quickly or too slowly.	Adjust the switching speed (page 27).
The switching lever does not work.	Turn off the AUTO button.
The mixing or wiping is not the way you want.	Turn off the mixing or wiping button which you do not want.
Beeps are bothering.	You can mute the beeps. See page 53.
Short beeps sound when you press a button, and another button flashes.	The flashing button must be activated at the same. Press the flashing button to turn on.
Short beeps sound when you press a PROGRAM MEMORY number button.	• No program memory is stored in the button. • The button does not have an option function.
Short beeps sound when you press an A/V ADJ. MEMORY button.	No adjustment is stored in the button.
Short beeps sound when you press ∧ , ∨ , < or > button.	You have reached the limit of the adjustable range.
You cannot execute the program memory.	Press the RECALL button first and then press the program number button.

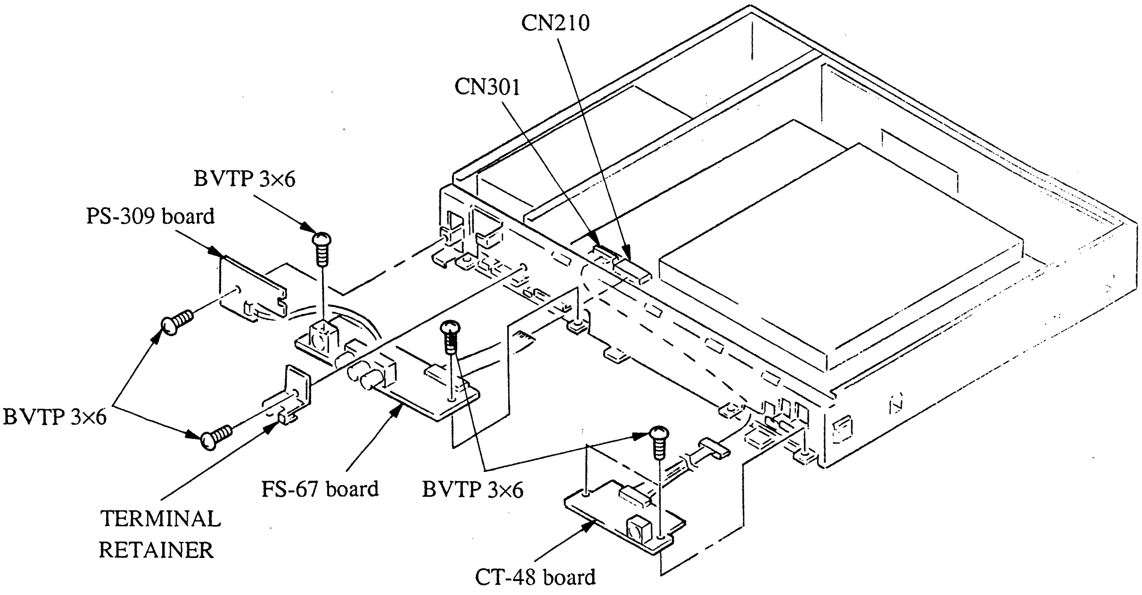
SECTION 2
DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

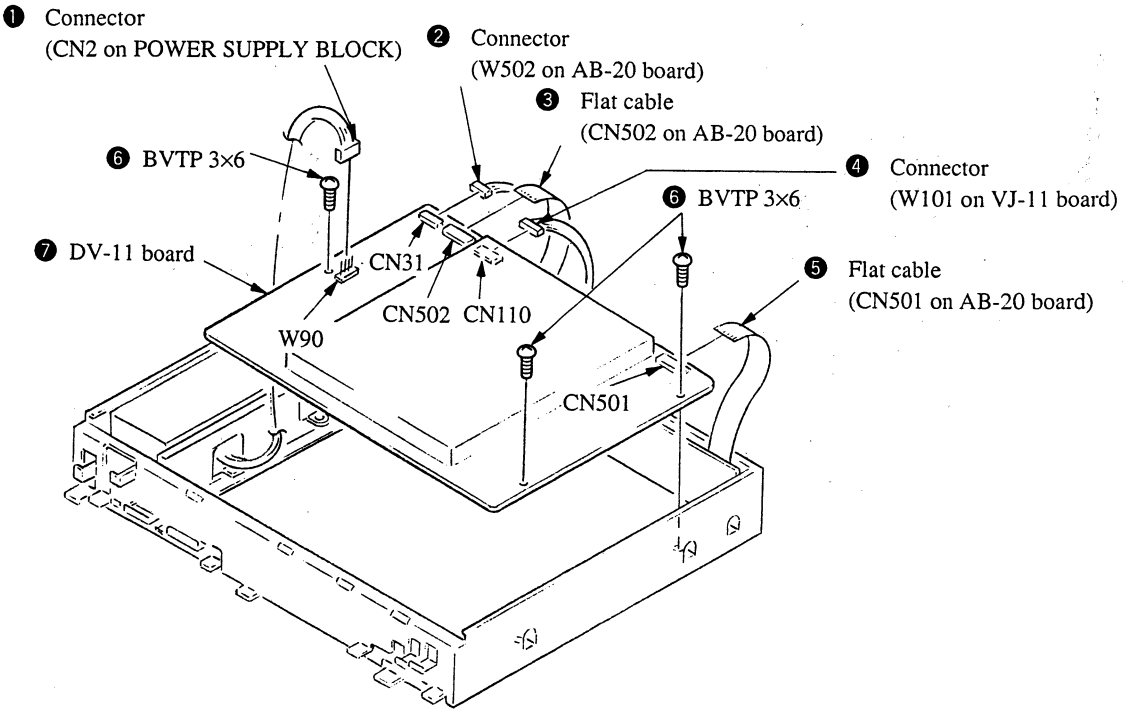
2-1. REMOVAL OF UPPER CASE AND FRONT ORNAMENT ASSEMBLY


❷ Case screw
❸
❶ BVTP 3×6
Upper case
❷ Case screw
❹ BVTP 3×6
Ⓑ
Loosen the seven screws. Slide the plate toward the BACK PANEL. Remove washers.
❺ Remove the front ornament assembly in the direction of arrow Ⓐ and Ⓑ.
Ⓐ
Claws
❹ BVTP 3×6

2-2. REMOVAL OF PS-309, FS-67, CT-48 BOARDS

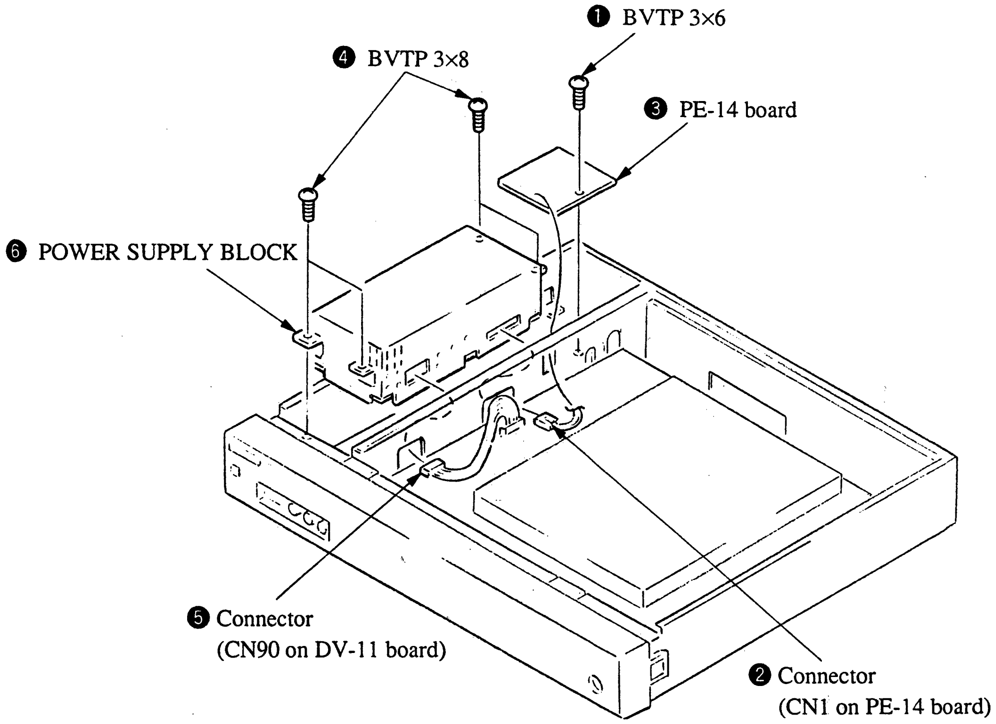

CN210
CN301
BVTP 3×6
PS-309 board
BVTP 3×6
FS-67 board
BVTP 3×6
TERMINAL RETAINER
CT-48 board

2-3. REMOVAL OF DV-11 BOARD



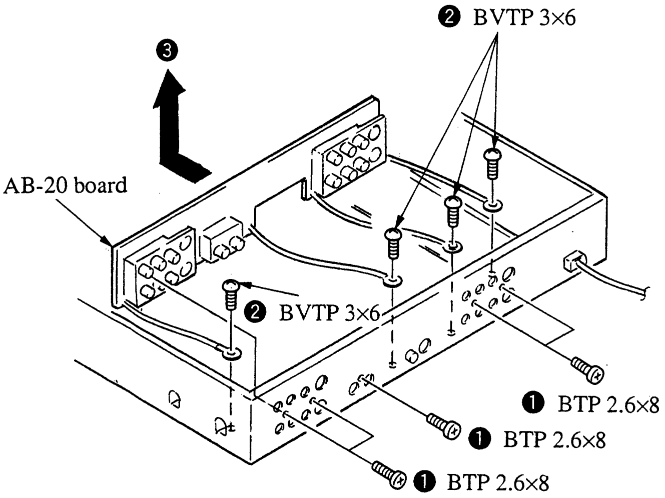
❶ Connector
(CN2 on POWER SUPPLY BLOCK)
❷ Connector
(W502 on AB-20 board)
❸ Flat cable
(CN502 on AB-20 board)
❹ Connector
(W101 on VJ-11 board)
❻ BVTP 3×6
❻ BVTP 3×6
❺ Flat cable
(CN501 on AB-20 board)
❼ DV-11 board
CN31
W90
CN502
CN110
CN501

2-4. REMOVAL OF PE-14 BOARD, POWER SUPPLY BLOCK

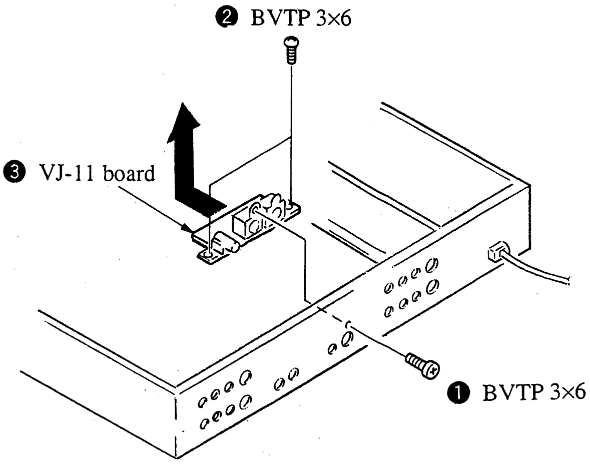


❶ BVTP 3×6
❹ BVTP 3×8
❸ PE-14 board
❻ POWER SUPPLY BLOCK
❺ Connector
(CN90 on DV-11 board)
❷ Connector
(CN1 on PE-14 board)

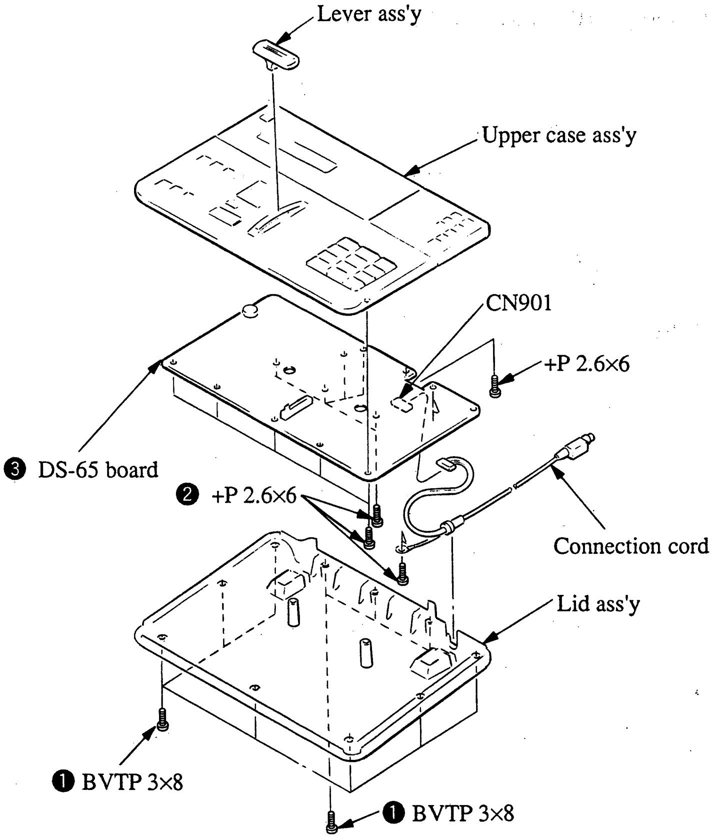
2-5. REMOVAL OF AB-20 BOARD


❷ BVTP 3×6
❸
AB-20 board
❷ BVTP 3×6
❶ BTP 2.6×8
❶ BTP 2.6×8
❶ BTP 2.6×8

2-6. REMOVAL OF VJ-11 BOARD

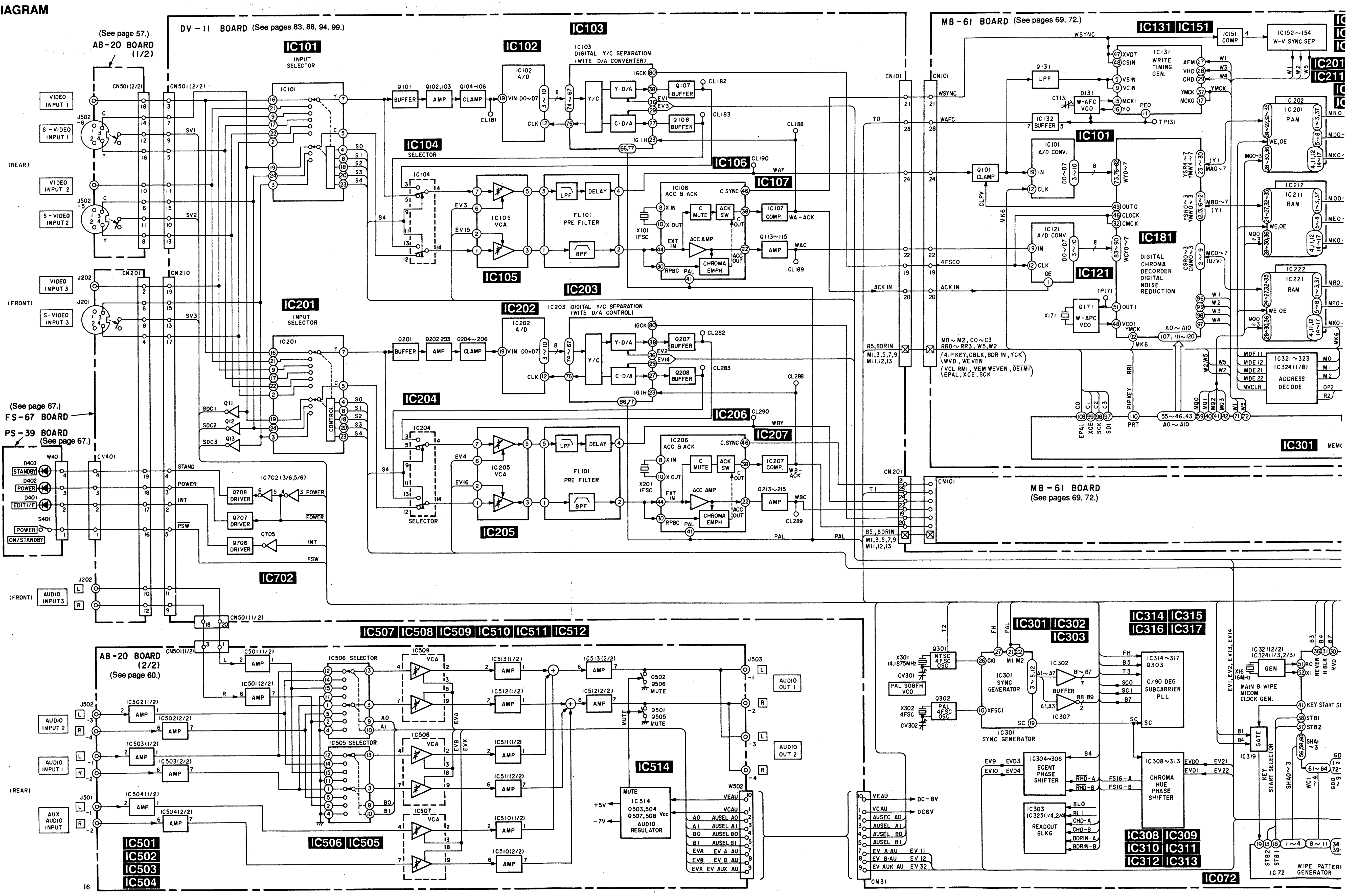

❷ BVTP 3×6
❸ VJ-11 board
❶ BVTP 3×6

2-7. REMOVAL OF DS-65 BOARD (CONTROL UNIT)

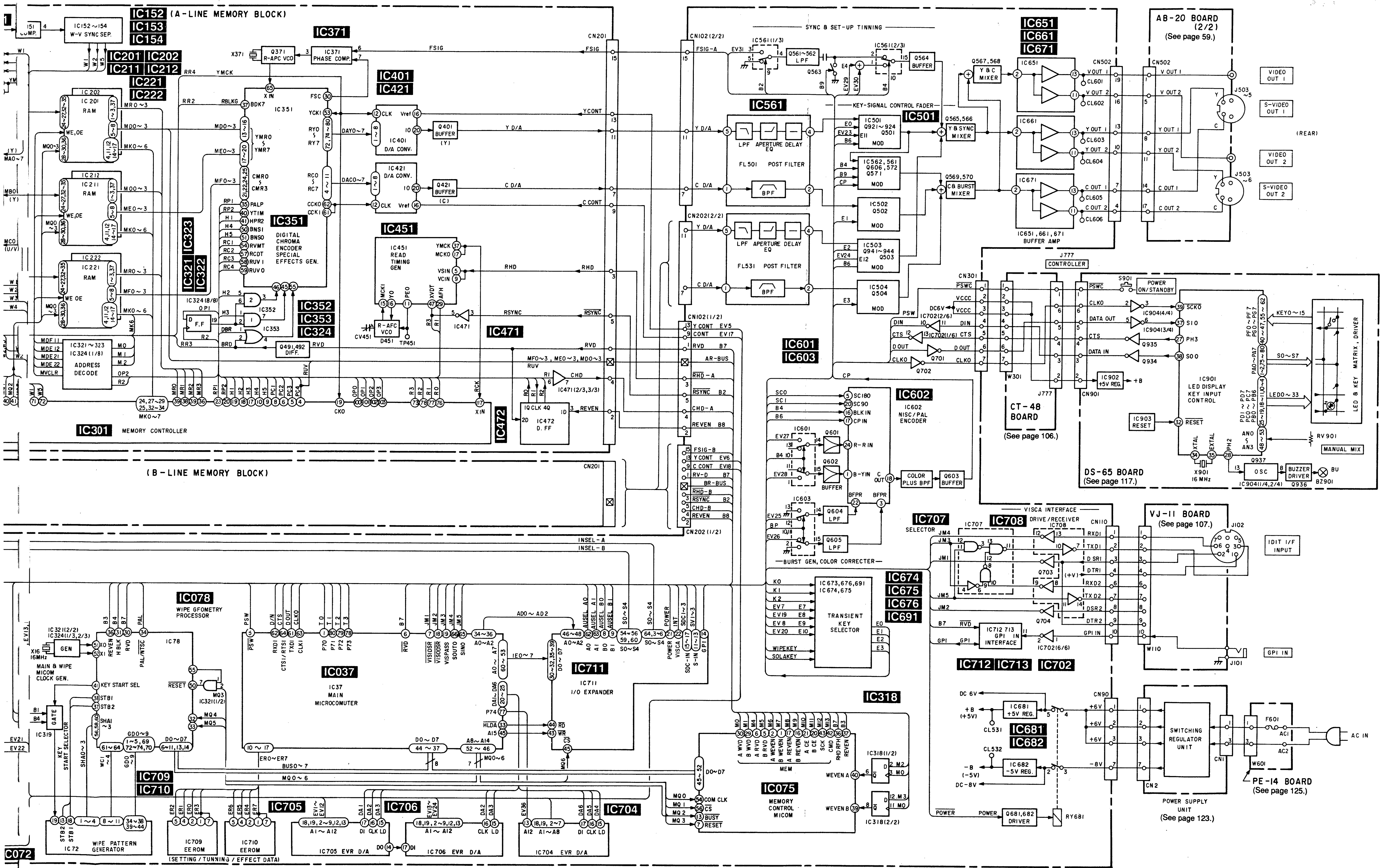

Lever ass'y
Upper case ass'y
CN901
+P 2.6×6
❸ DS-65 board
❷ +P 2.6×6
Connection cord
Lid ass'y
❶ BVTP 3×8
❶ BVTP 3×8

SECTION 3
DIAGRAMS

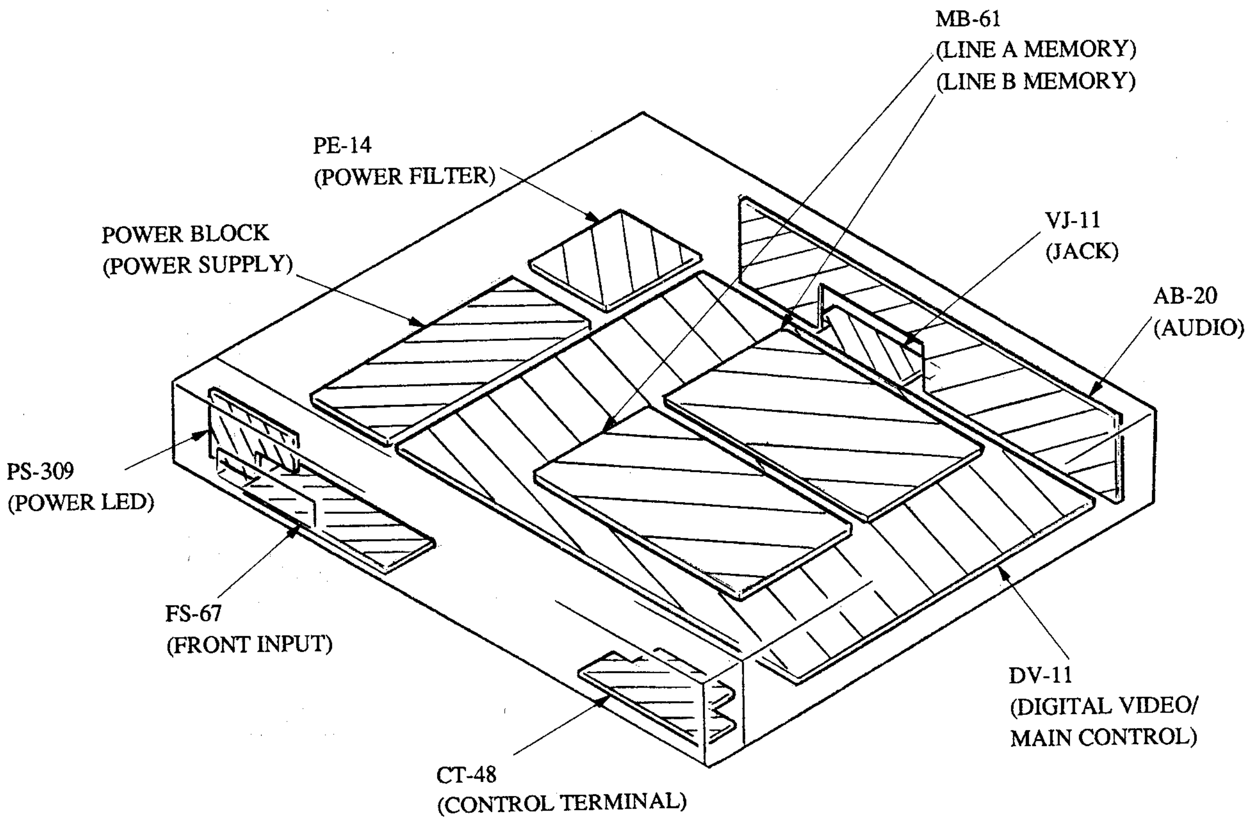
3-1. OVERALL BLOCK DIAGRAM



AB-20 BOARD (1/2) (See page 57.)
DV-11 BOARD (See pages 83, 88, 94, 99.)
MB-61 BOARD (See pages 69, 72.)
FS-67 BOARD (See page 67.)
PS-39 BOARD (See page 67.)
AB-20 BOARD (2/2) (See page 60.)
VIDEO INPUT 1
S-VIDEO INPUT 1
VIDEO INPUT 2
S-VIDEO INPUT 2
VIDEO INPUT 3
S-VIDEO INPUT 3
(REAR)
(FRONT)
AUDIO INPUT 3
AUDIO INPUT 2
AUDIO INPUT 1
AUX AUDIO INPUT
AUDIO OUT 1
AUDIO OUT 2
IC101 INPUT SELECTOR
IC102 A/D
IC103 DIGITAL Y/C SEPARATION (WITE D/A CONVERTER)
IC104 SELECTOR
IC105 VCA
FL101 PRE FILTER
IC106 ACC & ACK
IC107 COMP.
IC201 INPUT SELECTOR
IC202 A/D
IC203 DIGITAL Y/C SEPARATION (WITE D/A CONTROL)
IC204 SELECTOR
IC205 VCA
IC206 ACC & ACK
IC207 COMP.
IC702
IC131 WRITE TIMING GEN.
IC151 COMP.
IC152~154 W-V SYNC SEP.
IC101 A/D CONV.
IC121 A/D CONV.
IC181 DIGITAL CHROMA DECORDER DIGITAL NOISE REDUCTION
IC201 RAM
IC211 RAM
IC221 RAM
IC321~323 IC324(1/8) ADDRESS DECODE
IC301 IC302 IC303
IC301 SYNC GENERATOR
IC314~317 Q303 0/90 DEG SUBCARRIER PLL
IC304~306 ECENT PHASE SHIFTER
IC303 IC325(1/4,2/4) READOUT BLKG
IC308~313 CHROMA HUE PHASE SHIFTER
IC72 WIPE PATTERN GENERATOR
IC072
IC507 IC508 IC509 IC510 IC511 IC512
IC506 SELECTOR
IC505 SELECTOR
IC514 Q503,504 Q507,508 AUDIO REGULATOR
IC501 IC502 IC503 IC504
IC505 IC506


IC152 IC153 IC154 (A-LINE MEMORY BLOCK)
IC152~154 W-V SYNC SEP.
IC201 IC202 IC211 IC212 IC221 IC222
IC371
IC371 PHASE COMP.
Q371 R-APC VCO
IC401 IC421
IC401 D/A CONV.
IC421 D/A CONV.
Q401 BUFFER (Y)
Q421 BUFFER (C)
IC351
IC351 DIGITAL CHROMA ENCODER SPECIAL EFFECTS GEN.
IC321 IC322 IC323
IC352 IC353 IC324
IC324(8/8) OPI F.F
Q491,492 DIFF.
IC451
IC451 READ TIMING GEN
R-AFC VCO
IC471
IC471(2/3,3/3)
IC472
IC472 D.FF
IC321~323 IC324(1/8) ADDRESS DECODE
IC301 MEMORY CONTROLLER
(B-LINE MEMORY BLOCK)
CN201
CN102(2/2)
CN202(2/2)
CN102(1/2)
CN202(1/2)
SYNC & SET-UP TINNING
IC561(1/3)
Q561~562 LPF
IC561(2/3)
Q564 BUFFER
IC561
LPF APERTURE EQ DELAY
FL501 POST FILTER
FL531 POST FILTER
BPF
KEY-SIGNAL CONTROL FADER
IC501 Q921~924 Q501 MOD
IC501
IC562,561 Q606,572 Q571 MOD
IC502 Q502 MOD
IC503 Q941~944 Q503 MOD
IC504 Q504 MOD
Q565,566 Y & SYNC MIXER
Q569,570 C & BURST MIXER
Q567,568 Y & C MIXER
IC651 IC661 IC671
IC651,661,671 BUFFER AMP
CN502
AB-20 BOARD (2/2) (See page 59.)
VIDEO OUT 1
S-VIDEO OUT 1
VIDEO OUT 2
S-VIDEO OUT 2
(REAR)
J503
IC601 IC603
IC602
IC602 NTSC/PAL ENCODER
Q601 Q602 BUFFER
Q604 LPF
Q605 LPF
COLOR PLUS BPF
Q603 BUFFER
BURST GEN, COLOR CORRECTER
IC674 IC675 IC676 IC691
IC673,676,691 IC674,675 TRANSIENT KEY SELECTOR
CN301
Q701 Q702
J777 CONTROLLER
CT-48 BOARD (See page 106.)
POWER ON/STANDBY
IC904(4/4) IC904(3/4)
Q935 Q934
IC902 +5V REG.
IC901 LED DISPLAY KEY INPUT CONTROL
IC903 RESET
LED & KEY MATRIX, DRIVER
RV901 MANUAL MIX
OSC
BUZZER DRIVER
BZ901
X901 16MHz
IC904(1/4,2/4) Q936
DS-65 BOARD (See page 117.)
CN901
VISCA INTERFACE
IC707 SELECTOR
IC708 DRIVE/RECEIVER
IC707 IC708
Q703 Q704
IC712 713 GPI IN INTERFACE
IC702(6/6)
IC712 IC713 IC702
CN110
VJ-11 BOARD (See page 107.)
J102
EDIT I/F INPUT
GPI IN
J101
IC078
WIPE GEOMETRY PROCESSOR
IC78
IC321(2/2) IC324(1/3,2/3)
X16 16MHz
MAIN & WIPE MICOM CLOCK GEN.
GEN
KEY START SEL
IC319 GATE KEY START SELECTOR
IC321(1/2)
IC037
IC37 MAIN MICROCOMUTER
IC711
IC711 I/O EXPANDER
IC318
IC075
IC075 MEMORY CONTROL MICOM
MEM
IC318(1/2) IC318(2/2)
IC709 IC710
IC705 IC706 IC704
IC72 WIPE PATTERN GENERATOR
IC709 EEROM
IC710 EEROM
(SETTING/TUNNING/EFFECT DATA)
IC705 EVR D/A
IC706 EVR D/A
IC704 EVR D/A
IC072
IC681 IC682
IC681 +5V REG.
IC682 -5V REG.
Q681,682 DRIVER
RY681
CN90
SWITCHING REGULATOR UNIT
POWER SUPPLY UNIT (See page 123.)
CN1 CN2
F601
AC IN
PE-14 BOARD (See page 125.)
W601

3-2. CIRCUIT BOARDS LOCATION


MB-61
(LINE A MEMORY)
(LINE B MEMORY)
PE-14
(POWER FILTER)
POWER BLOCK
(POWER SUPPLY)
VJ-11
(JACK)
AB-20
(AUDIO)
PS-309
(POWER LED)
FS-67
(FRONT INPUT)
DV-11
(DIGITAL VIDEO/
MAIN CONTROL)
CT-48
(CONTROL TERMINAL)

3-3. IC PIN DESCRIPTION

• IC37 M37702M4 MAIN MICROCOMPUTER (DV-11 Board)

No.	Pin Name	I/O	Description
1	AD A AFC	A	LINE A AFC VOLTAGE
2			Not used
3			Not used
4			Not used
5	PSW	I	POWER SW ON L: ACTIVE
6	RVD	I	READ SYSTEM VD L: ACTIVE
7	VISIDSR	I	EDIT I/F DATA SET READY 1
8			Not used
9			Not used
10	EEI CS	O	EEROM I CHIP SELECT L: ACTIVE
11	EEI RD	I	EEROM I READ DATA INPUT
12	EEI WR	O	EEROM I WRITE DATA OUTPUT
13	EEI CLK	O	EEROM I CLK
14	EEO CS	O	EEROM O CHIP SELECT L ACTIVE
15	EEO RD	I	EEROM O READ DATA INPUT
16	EEO WR	O	EEROM O WRITE DATA OUTPUT
17	EEO CLK	O	EEROM O CLK
18	VISODSR	I	EDIT I/F DATA SET READY 2
19	VISPASS	O	EDIT I/F PASS SIGNAL L: ACTIVE
20	DA2 LD	O	D/A CONVERTER 2 LOAD DATA
21	DA2 DATA	O	D/A CONVERTER 2 DATA OUTPUT
22	DA2 CLK	O	D/A CONVERTER 2 DATA SHIFT CLOCK OUTPUT
23	DA01 LD	O	D/A CONVERTER 0 &1 LOAD DATA
24	DA01 DATA	O	D/A CONVERTER 0 &1 DATA OUTPUT
25	DA01 CLK	O	D/A CONVERTER 0 &1 DATA SHIFT CLOCK OUTPUT
33	IORD	O	I/O EXPANDER READ L: ACTIVE
34	A2	O	I/O EXPANDER ADDRESS 2
35	A1	O	I/O EXPANDER ADDRESS 1
36	A0	O	I/O EXPANDER ADDRESS 0
37	BUS7	O	
38	BUS6	O	
39	BUS5	O	
40	BUS4	O	(GATE ARRAY)
41	BUS3	O	WIPE MICROCOMPUTER-OUTPUT ONLY
42	BUS2	O	MEMORY MICROCOMPUTER-OUTPUT ONLY
43	BUS1	O	SYSTEM DATA BUS (8-BIT PARA)
44	BUS0	O	
45	IOWR	O	I/O EXPANDER WRITE L: ACTIVE
46	IO CS	O	I/O EXPANDER CHIP SELECT L: ACTIVE
47	WIPE SC	O	WIPE MICROCOMPUTER CHIP SELECT L: ACTIVE
48	WIPE CLK	O	WIPE MICROCOMPUTER DATA SHIFT CLOCK
49	CO RESET	O	MEMORY & WIPE MICROCOMPUTER RESET
50	MEM BUSY	I	MEMORY MICROCOMPUTER BUSY (CAN'T RECIEVE DATA)

No.
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No.	Pin Name	I/O	Description
51	MEM CS	O	MEMORY MICROCOMPUTER CHIP SELECT L: ACTIVE
52	MEM CLK	O	MEMORY MICROCOMPUTER DATA SHIFT CLOCK
53	I/O7	I/O	I/O EXPANDER DATABUS 7
54	I/O6	I/O	I/O EXPANDER DATABUS 6
55	I/O5	I/O	I/O EXPANDER DATABUS 5
56	I/O4	I/O	I/O EXPANDER DATABUS 4
57	I/O3	I/O	I/O EXPANDER DATABUS 3
58	I/O2	I/O	I/O EXPANDER DATABUS 2
59	I/O1	I/O	I/O EXPANDER DATABUS 1
60	I/O0	I/O	I/O EXPANDER DATABUS 0
61	TXD2	O	SERIAL INTERFACE TO CONTROLLER TRANSMIT DATA
62	RXD1	I	SERIAL INTERFACE TO CONTROLLER RECEIVE DATA
63	CLK1	O	SERIAL INTERFACE TO CONTROLLER SHIFT CLK OUT
64	CTS	I	SERIAL INTERFACE TO CONTROLLER ADMIT TRANSMIT
65	SOUTO	O	EDIT I/F INTERFACE SERIAL DATA OUTPUT
66	SINO	I	EDIT I/F INTERFACE SERIAL DATA INPUT
67			Not used
68			Not used
69	VCC	—	Power supply terminal
70	AVCC	—	Power supply terminal
71	VREF	—	Power supply terminal
72	AVSS	—	GND terminal
73	VSS	—	GND terminal
74		A	Not used
75		A	Not used
76		A	Not used
77	DA CHECK	A	CONNECTED TO EVR36 ANALOG PORT
78	AD PLL2	A	BURST SC PLL CONT VOLTAGE (PLL2)
79	AD PLL1	A	PAL 908FH PLL CONT VOLTAGE (PLL1)
80	AD B AFC	A	LINE B AFC VOLTAGE

• IC704, 705, 706 M62352FP EVR D/A CONVERTER (DV-11 Board)
(EVR ADDRESS LIST)

IC	No.	Pin Name	Description
IC704	2	EVR27	EV PLS R
	3	EVR28	EV PLS B
	4	EVR29	EV SETUP
	5	EVR30	EV WHTLEV
	6	EVR31	EV SYNCLEV
	7	EVR32	EV AUXAU
	8	EVR33	
	9	EVR34	
	12	EVR35	
	13	EVR36	EV CHECK
	18	EVR25	EV BST R
	19	EVR26	EV BST B
IC705	2	EVR3	EV A WY
	3	EVR4	EV B WY
	4	EVR5	EV A RY
	5	EVR6	EV B RY
	6	EVR7	EV A FY
	7	EVR8	EV B FY
	8	EVR9	EV A HCENT
	9	EVR10	EV B HCENT
	12	EVR11	EV A AU
	13	EVR12	EV B AU
	18	EVR1	EV A Y/C Y
	19	EVR2	EV B Y/C Y
IC706	2	EVR15	EV A WC
	3	EVR16	EV B WC
	4	EVR17	EV A RC
	5	EVR18	EV B RC
	6	EVR19	EV A FC
	7	EVR20	EV B FC
	8	EVR21	EV A HUE
	9	EVR22	EV B HUE
	12	EVR23	
	13	EVR24	
	18	EVR13	EV A Y/C C
	19	EVR14	EV B Y/C C

• IC711 CXD1095Q I/O EXPANDER (DV-11 Board)

No.	Pin Name	I/O	Description
1			Not used
2		—	Not used
3	S1	O	VIDEO INPUT SELECT LINE B bit1
4	S2	O	VIDEO INPUT SELECT LINE B bit2
5	S3	O	VIDEO INPUT SELECT LINE B bit3
6	S4	O	VIDEO INPUT SELECT LINE B bit4
7	BLB	O	LINE B BLACK H: BACK COLOR L: PICTURE
8	B0	O	AUDIO INPUT SELECT LINE B bit0 *
9	B1	O	AUDIO INPUT SELECT LINE B bit1
10	VSS	—	GND terminal
11	IN1S	I	S INPUT1 DETECTOR L: S H: V
12	IN2S	I	S INPUT2 DETECTOR L: S H: V
13	IN3S	I	S-INPUT3 DETECTOR L: S H: V
14	GPI	I	GPI INPUT L: ACTIVE HARD LATCHED EVERY VD
15	SDC1	I	S INPUT1 SDC WIRE I/D DETECTOR L: ACTIVE
16	SDC2	I	S INPUT2 SDC WIRE I/D DETECTOR L: ACTIVE
17	SDC3	I	S INPUT3 SDC WIRE I/D DETECTOR L: ACTIVE
18	PAL/NT	I	PAL/NT DETECT H: PAL L: NTSC
19			Not used
20	K0	O	TRANSIENT KEY SELECT L: MIX & FADE H: WIPE & OTHER
21	POWER	O	POWER L: STANDBY H: POWER ON
22	VISCA	O	EDIT I/F LED L: OFF H: EDIT I/F CONNECT
23	SDCO	O	SDC WIDE I/D OUTPUT ALREADY: L
24	GACS	O	NOT RELEASE
25	VSS		GND terminal
26	VDD		Power supply terminal
27		O	
28		O	
29		O	
30	IE0	I/O	MAIN MICROCOMPUTER DATABUS 0
31	IE1	I/O	MAIN MICROCOMPUTER DATABUS 1
32	IE2	I/O	MAIN MICROCOMPUTER DATABUS 2
33			Not used
34			Not used
35	IE3	I/O	MAIN MICROCOMPUTER DATABUS 3
36	IE4	I/O	MAIN MICROCOMPUTER DATABUS 4
37	IE5	I/O	MAIN MICROCOMPUTER DATABUS 5
38	IE6	I/O	MAIN MICROCOMPUTER DATABUS 6
39	IE7	I/O	MAIN MICROCOMPUTER DATABUS 7
40	$\overline{\text{CLR}}$		Power supply terminal
41	$\overline{\text{ODEN}}$		Power supply terminal
42	VSS		GND terminal
43	$\overline{\text{WR}}$	I	MAIN MICROCOMPUTER WRITE
44	$\overline{\text{RD}}$	I	MAIN MICROCOMPUTER READ
45	$\overline{\text{CS}}$	I	MAIN MICROCOMPUTER CHIP SELECT

No.	Pin Name	I/O	Description
46	ADO	I	MAIN MICROCOMPUTER ADDRESS 0
47	AD1		MAIN MICROCOMPUTER ADDRESS 1
48	AD2		MAIN MICROCOMPUTER ADDRESS 2
49	AVOK	I	LINE A L: NON SIGNAL INPUT
50	BVOK	I	LINE B L: NON SIGNAL INPUT
51			Not used
52	AMULTI	I/O	LINE A HiZ: MULTI OFF L: MULTI ON
53	BMULTI	I/O	LINE B HiZ: MULTI OFF L: MULTI ON
54	S0	O	VIDEO INPUT SELECT LINE A bit0 *
55	S1	O	VIDEO INPUT SELECT LINE A bit1
56	S2	O	VIDEO INPUT SELECT LINE A bit2
57	VSS		GND terminal
58	VDD		Power supply terminal
59	S3	O	VIDEO INPUT SELECT LINE A bit3
60	S4	O	VIDEO INPUT SELECT LINE A bit4
61	BLA	O	LINE A BLACK H: BACK COLOR L: PICTURE
62	A0	O	AUDIO INPUT SELECT LINE A bit0 *
63	A1	O	AUDIO INPUT SELECT LINE A bit1
64	S0	O	VIDEO INPUT SELECT LINE B bit0 *

* VIDEO INPUT SELECT LOGIC

INPUT No.	S/V	S0	S1	S2	S3	S4
1	S	1	0	0	0	0
	V	1	0	1	0	1
2	S	0	1	0	0	0
	V	0	1	0	1	1
3	S	1	1	0	0	0
	V	0	0	0	0	1

AUDIO INPUT SELECT LOGIC

INPUT No.	A0,B0	A1,B1
1	0	0
2	0	1
3	1	0

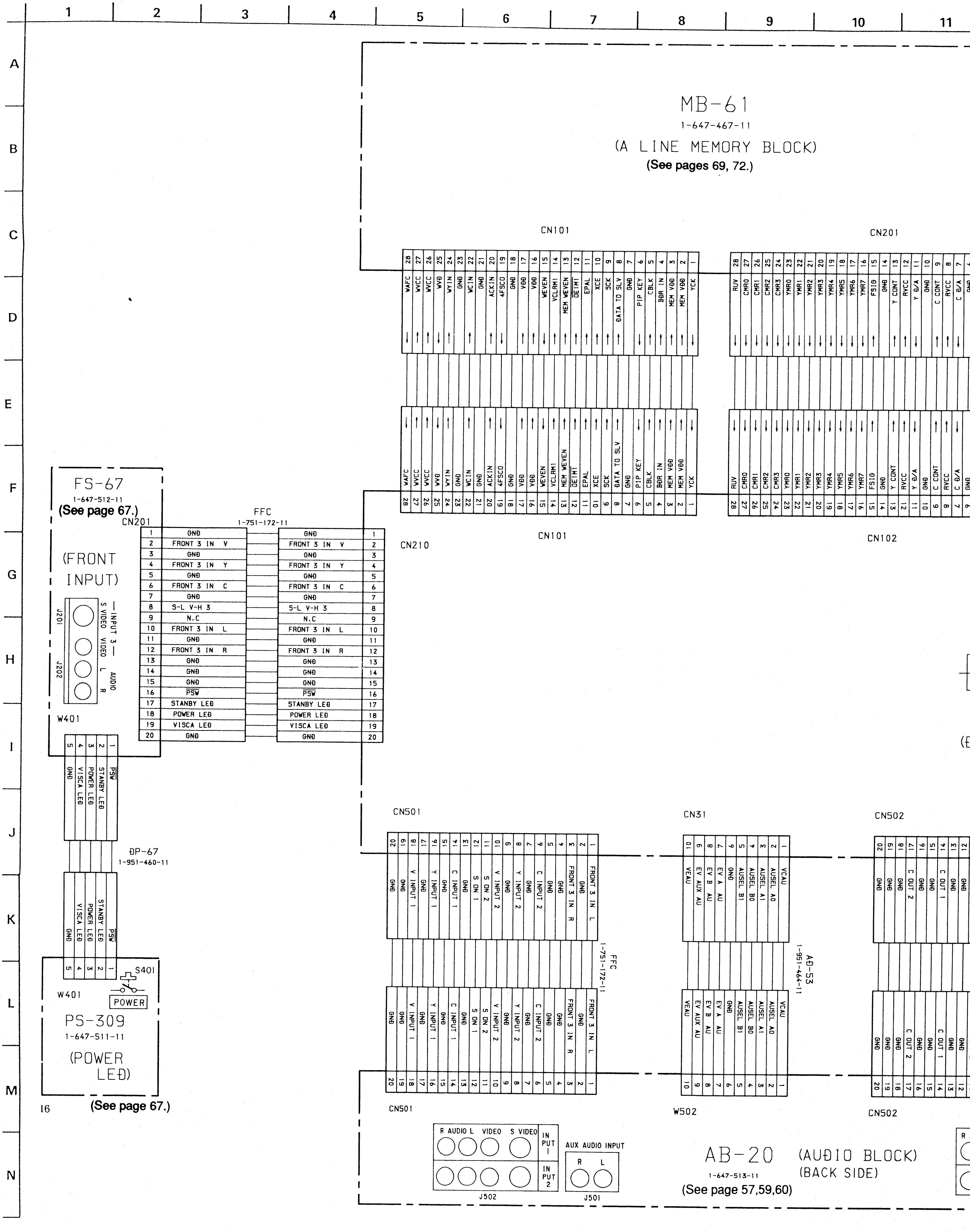
- **IC901 CXP80116 KEY MICROCOMPUTER (DS-65 Board)**

No.	Pin Name	I/O	Description
1	S1	O	KEY & LED SCAN OUTPUT1(Ref. to Matrix Table)
2	S0	O	KEY & LED SCAN OUTPUT0 L: ACTIVE
3	LED7	O	LED DATA OUTPUT bit7
4	LED6	O	LED DATA OUTPUT bit6
5	LED5	O	LED DATA OUTPUT bit5
6	LED4	O	LED DATA OUTPUT bit4
7	LED3	O	LED DATA OUTPUT bit3
8	LED2	O	LED DATA OUTPUT bit2
9	LED1	O	LED DATA OUTPUT bit1
10	LED0	O	LED DATA OUTPUT bit0 H: ACTIVE
11	LED15	O	LED DATA OUTPUT bit15
12	LED14	O	LED DATA OUTPUT bit14
13	LED13	O	LED DATA OUTPUT bit13
14	LED12	O	LED DATA OUTPUT bit12
15	LED11	O	LED DATA OUTPUT bit11
16	LED10	O	LED DATA OUTPUT bit10
17	LED9	O	LED DATA OUTPUT bit9
18	LED8	O	LED DATA OUTPUT bit8
19	LED23	O	LED DATA OUTPUT bit23
20	LED22	O	LED DATA OUTPUT bit22
21	LED21	O	LED DATA OUTPUT bit21
22	LED20	O	LED DATA OUTPUT bit20
23	LED19	O	LED DATA OUTPUT bit19
24	LED18	O	LED DATA OUTPUT bit18
25	LED17	O	LED DATA OUTPUT bit17
26	LED16	O	LED DATA OUTPUT bit16
27	CTS	O	ADMIT TRANSMIT
28	BEEP	O	BUZZER ON L: ACTIVE
29	LED25	O	LED DATA OUTPUT bit25
30	LED32	O	LED DATA OUTPUT bit32
31	MP		GND terminal
32	$\overline{\text{RESET}}$		RESET
33	VSS		GND terminal
34	XTAL	I	Quartz oscillation circuit input terminal
35	EXTAL	O	Quartz oscillation circuit output terminal
36	$\overline{\text{CSO}}$		High
37	SIO		
38	SO0		
39	$\overline{\text{SCKO}}$		
40	KEY7	I	KEY SCAN DATA INPUT bit7
41	KEY6	I	KEY SCAN DATA INPUT bit6
42	KEY5	I	KEY SCAN DATA INPUT bit5
43	KEY4	I	KEY SCAN DATA INPUT bit4
44	KEY3	I	KEY SCAN DATA INPUT bit3

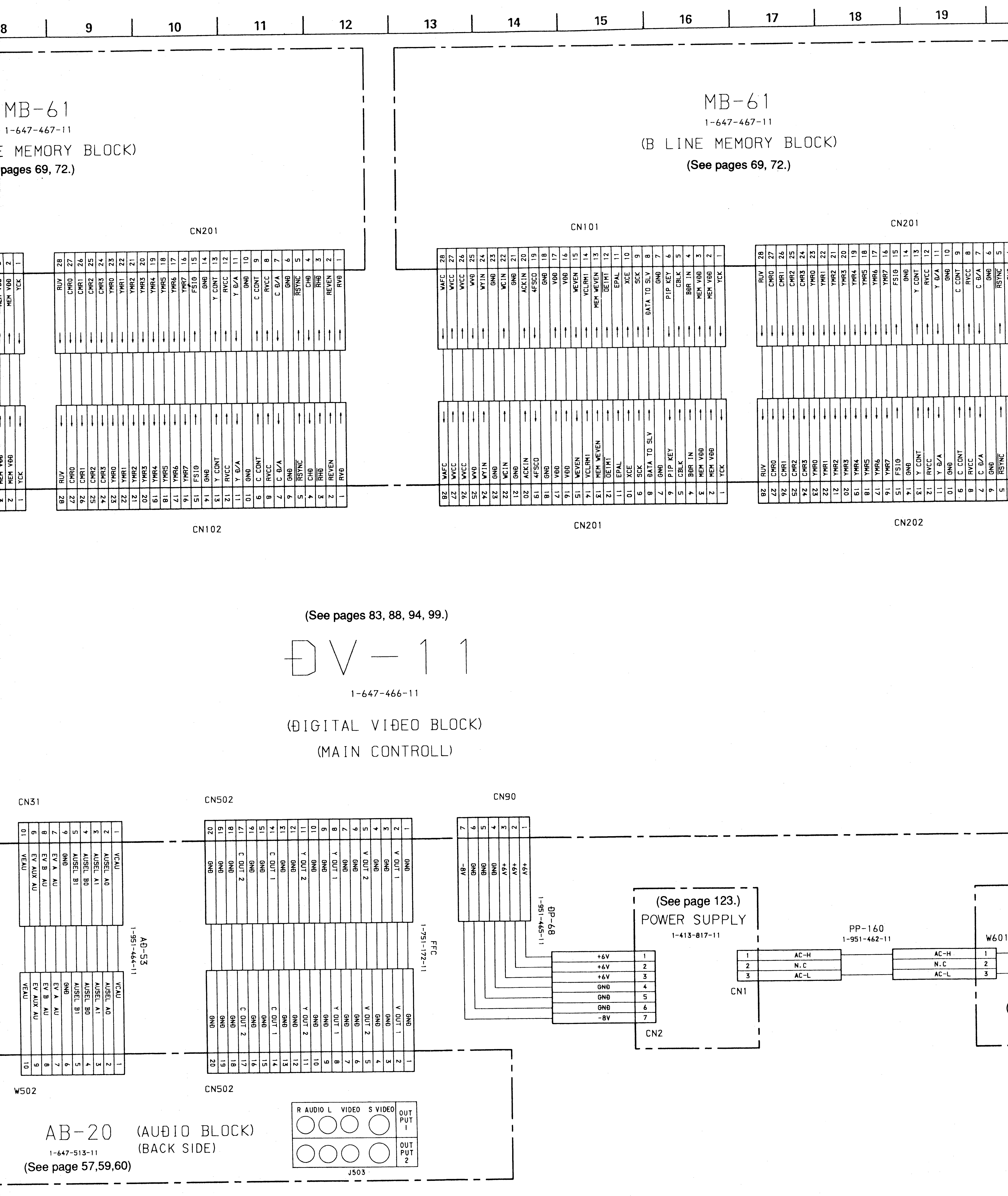
No.	Pin Name	I/O	Description
45	KEY2	I	KEY SCAN DATA INPUT bit2
46	KEY1	I	KEY SCAN DATA INPUT bit1
47	KEY0	I	KEY SCAN DATA INPUT bit0 L: ACTIVE
48	FADER	A	FADER VOLUME
52	AVSS		GND terminal
53	AVREF		Power supply terminal
54	AVDD		Power supply terminal
55	KEY15	I	KEY SCAN DATA INPUT bit15
56	KEY14	I	KEY SCAN DATA INPUT bit14
57	KEY13	I	KEY SCAN DATA INPUT bit13
58	KEY12	I	KEY SCAN DATA INPUT bit12
59	KEY11	I	KEY SCAN DATA INPUT bit11
60	KEY10	I	KEY SCAN DATA INPUT bit10
61	KEY9	I	KEY SCAN DATA INPUT bit9
62	KEY8	I	KEY SCAN DATA INPUT bit8
63	LED31	O	LED DATA OUTPUT bit31
64	LED30	O	LED DATA OUTPUT bit30
65	LED29	O	LED DATA OUTPUT bit29
66	LED28	O	LED DATA OUTPUT bit28
67	LED27	O	LED DATA OUTPUT bit27
68	LED26	O	LED DATA OUTPUT bit26
69		I	High
70		I	High
71		I	High
72	VDD		Power supply terminal
73	VSS		GND terminal
74	VPP		Power supply terminal
75	S7	O	KEY & LED SCAN OUTPUT7
76	S6	O	KEY & LED SCAN OUTPUT6
77	S5	O	KEY & LED SCAN OUTPUT5
78	S4	O	KEY & LED SCAN OUTPUT4
79	S3	O	KEY & LED SCAN OUTPUT3
80	S2	O	KEY & LED SCAN OUTPUT2

SECTION 4
PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-1. FRAME SCHEMATIC DIAGRAM


1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H I J K L M N
MB-61
1-647-467-11
(A LINE MEMORY BLOCK)
(See pages 69, 72.)
CN101
CN201
WAFC WVCC WVCC ΘAW WYIN GND WCIN GND ACKIN 4FSCO GND VΘΘ VΘΘ WEVEN VCLRM1 MEM WEVEN ΘEIMI EPAL XCE SCK ΘATA TO SLV GND PIP KEY CBLK BΘR IN MEM VΘΘ MEM VΘΘ YCK
RUV CMR0 CMR1 CMR2 CMR3 YMR0 YMR1 YMR2 YMR3 YMR4 YMR5 YMR6 YMR7 FSIO GND Y CONT RVCC Y Θ/A GND C CONT RVCC C Θ/A GND
CN210
CN101
CN102
FS-67
1-647-512-11
(See page 67.)
CN201
(FRONT INPUT)
J201
J202
S VIDEO VIDEO L AUDIO R
—INPUT 3—
W401
FFC
1-751-172-11
1 GND
2 FRONT 3 IN V
3 GND
4 FRONT 3 IN Y
5 GND
6 FRONT 3 IN C
7 GND
8 S-L V-H 3
9 N.C
10 FRONT 3 IN L
11 GND
12 FRONT 3 IN R
13 GND
14 GND
15 GND
16 PSW
17 STANBY LEΘ
18 POWER LEΘ
19 VISCA LEΘ
20 GND
PSW STANBY LEΘ POWER LEΘ VISCA LEΘ GND
ΘP-67
1-951-460-11
S401
POWER
W401
PS-309
1-647-511-11
(POWER LEΘ)
(See page 67.)
CN501
CN31
CN502
FRONT 3 IN L GND FRONT 3 IN R GND GND C INPUT 2 GND Y INPUT 2 GND V INPUT 2 S ON 2 S ON 1 GND C INPUT 1 GND Y INPUT 1 GND V INPUT 1 GND GND
FFC
1-751-172-11
VCAU AUSEL A0 AUSEL A1 AUSEL B0 AUSEL B1 GND EV A AU EV B AU EV AUX AU VEAU
AΘ-53
1-951-464-11
GND GND GND C OUT 2 GND GND C OUT 1 GND
W502
CN501
CN502
R AUDIO L VIDEO S VIDEO
IN PUT 1
IN PUT 2
J502
AUX AUDIO INPUT
R L
J501
AB-20
1-647-513-11
(AUΘIO BLOCK)
(BACK SIDE)
(See page 57,59,60)

16



8
9
10
11
12
13
14
15
16
17
18
19
MB-61
1-647-467-11
E MEMORY BLOCK)
MB-61
1-647-467-11
(B LINE MEMORY BLOCK)
CN201
CN101
CN201
CN102
CN201
CN202
DV-11
1-647-466-11
(DIGITAL VIDEO BLOCK)
(MAIN CONTROLL)
CN31
CN502
CN90
AD-53
1-951-464-11
FFC
1-751-172-11
DP-68
1-951-465-11
POWER SUPPLY
1-413-817-11
CN1
CN2
PP-160
1-951-462-11
W601
AC-H
N.C
AC-L
+6V
GND
-8V
W502
CN502
AB-20
1-647-513-11
(AUDIO BLOCK)
(BACK SIDE)
R AUDIO L
VIDEO
S VIDEO
OUT PUT 1
OUT PUT 2
J503

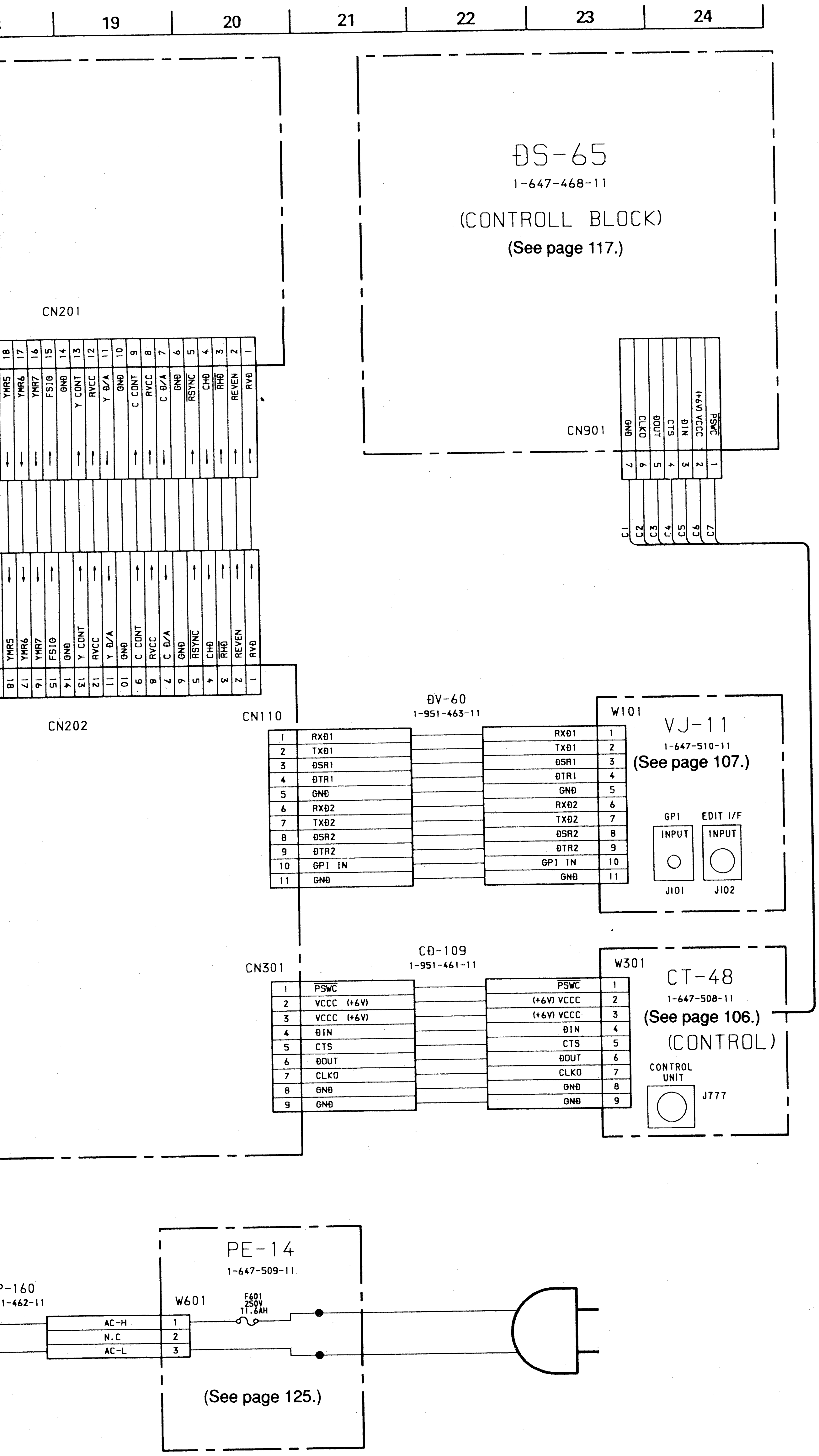
(See pages 69, 72.)

(See pages 69, 72.)

(See pages 83, 88, 94, 99.)

(See page 123.)

(See page 57,59,60)

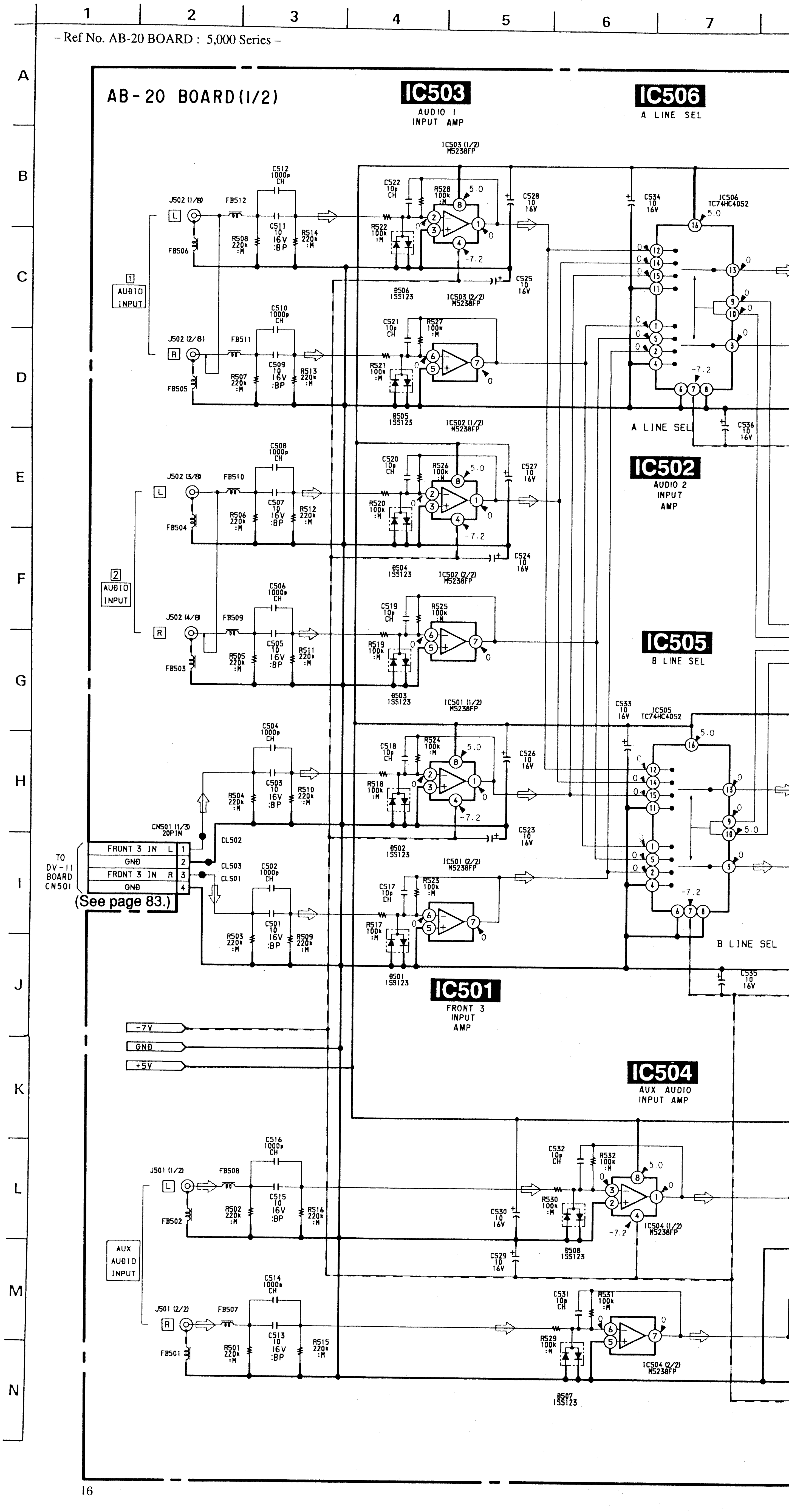


19
20
21
22
23
24
DS-65
1-647-468-11
(CONTROLL BLOCK)
(See page 117.)
CN901
GND
CLKD
DOUT
CTS
DIN
(+6V) VCCC
PSWC
C1
C2
C3
C4
C5
C6
C7
CN201
YMR5
YMR6
YMR7
FS10
GND
Y CONT
RVCC
Y D/A
GND
C CONT
RVCC
C D/A
GND
RSYNC
CHD
RHD
REVEN
RVD
CN202
CN110
DV-60
1-951-463-11
RXD1
TXD1
DSR1
DTR1
GND
RXD2
TXD2
DSR2
DTR2
GPI IN
GND
W101
VJ-11
1-647-510-11
(See page 107.)
GPI
EDIT I/F
INPUT
INPUT
J101
J102
CN301
CD-109
1-951-461-11
PSWC
VCCC (+6V)
VCCC (+6V)
DIN
CTS
DOUT
CLKD
GND
GND
W301
CT-48
1-647-508-11
(See page 106.)
(CONTROL)
CONTROL UNIT
J777
-160
1-462-11
PE-14
1-647-509-11
W601
F601
250V
T1.6AH
AC-H
N.C
AC-L
(See page 125.)

4-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

AB-20 (AUDIO) SCHEMATIC DIAGRAM

– Ref No. AB-20 BOARD : 5,000 Series –


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
K
L
M
N
AB-20 BOARD(1/2)
IC503
AUDIO 1 INPUT AMP
IC506
A LINE SEL
IC503 (1/2) M5238FP
IC503 (2/2) M5238FP
IC506 TC74HC4052
C512 1000p CH
J502 (1/8)
FB512
FB506
C511 10 16V :BP
R508 220k :M
R514 220k :M
C522 10p CH
R528 100k :M
R522 100k :M
C528 10 16V
C534 10 16V
5.0
-7.2
C525 10 16V
D506 1SS123
1 AUDIO INPUT
L
R
J502 (2/8)
FB511
FB505
C510 1000p CH
C509 10 16V :BP
R507 220k :M
R513 220k :M
C521 10p CH
R527 100k :M
R521 100k :M
D505 1SS123
IC502 (1/2) M5238FP
A LINE SEL
C536 10 16V
IC502
AUDIO 2 INPUT AMP
J502 (3/8)
FB510
FB504
C508 1000p CH
C507 10 16V :BP
R506 220k :M
R512 220k :M
C520 10p CH
R526 100k :M
R520 100k :M
C527 10 16V
C524 10 16V
D504 1SS123
IC502 (2/2) M5238FP
2 AUDIO INPUT
J502 (4/8)
FB509
FB503
C506 1000p CH
C505 10 16V :BP
R505 220k :M
R511 220k :M
C519 10p CH
R525 100k :M
R519 100k :M
D503 1SS123
IC501 (1/2) M5238FP
IC505
B LINE SEL
C533 10 16V
IC505 TC74HC4052
C504 1000p CH
C503 10 16V :BP
R504 220k :M
R510 220k :M
C518 10p CH
R524 100k :M
R518 100k :M
C526 10 16V
C523 10 16V
D502 1SS123
CN501 (1/3) 20PIN
CL502
CL503
CL501
TO DV-11 BOARD CN501
FRONT 3 IN L 1
GND 2
FRONT 3 IN R 3
GND 4
(See page 83.)
IC501 (2/2) M5238FP
C502 1000p CH
C501 10 16V :BP
R503 220k :M
R509 220k :M
C517 10p CH
R523 100k :M
R517 100k :M
D501 1SS123
B LINE SEL
C535 10 16V
IC501
FRONT 3 INPUT AMP
-7V
GND
+5V
IC504
AUX AUDIO INPUT AMP
C516 1000p CH
J501 (1/2)
FB508
FB502
C515 10 16V :BP
R502 220k :M
R516 220k :M
C532 10p CH
R532 100k :M
R530 100k :M
C530 10 16V
C529 10 16V
D508 1SS123
IC504 (1/2) M5238FP
AUX AUDIO INPUT
C514 1000p CH
J501 (2/2)
FB507
FB501
C513 10 16V :BP
R501 220k :M
R515 220k :M
C531 10p CH
R531 100k :M
R529 100k :M
IC504 (2/2) M5238FP
D507 1SS123
16

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For printed wiring boards :

- o——— : indicated a lead wire mounted on the component side.
- •——— : indicated a lead wire mounted on the conductor side.
- ○ : Through hole.
- ▬▬ : Pattern from the side which enables seeing.

(Other pattern is not shown.)

Caution :

Pattern face side : (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side : (Component side)	Parts on the parts face side seen from the parts face are indicated.

For schematic diagram :

- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat minus side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4 W unless otherwise noted.
  Chip resistors : 1/10 W unless otherwise noted.
  kΩ : 1000Ω, MΩ : 1000kΩ
- All capacitors are in μF unless otherwise noted. pF : μμF.
  50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- ▭ : fusible resistor.
- ☐ : panel designation.
- △ : internal component.
- ☐ : adjustment for repair.*
- ▬ : B + Line.*
- ▬ ▬ ▬ : B – Line.*
- ⇨ : IN/OUT direction of B line (+, –). *
- Circled numbers refer to waveforms.*
- Voltage are dc between ground and measurement point when color bar is connected to INPUT 1 and RAMP is connected to INPUT 2.
  (input impedance : dc 10MΩ)
- Readings are taken with a color-bar signal input.*
- Readings are taken with a digital multimeter (DC10 MΩ).*
- Voltage variations may be noted due to normal production tolerances.

Note :
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

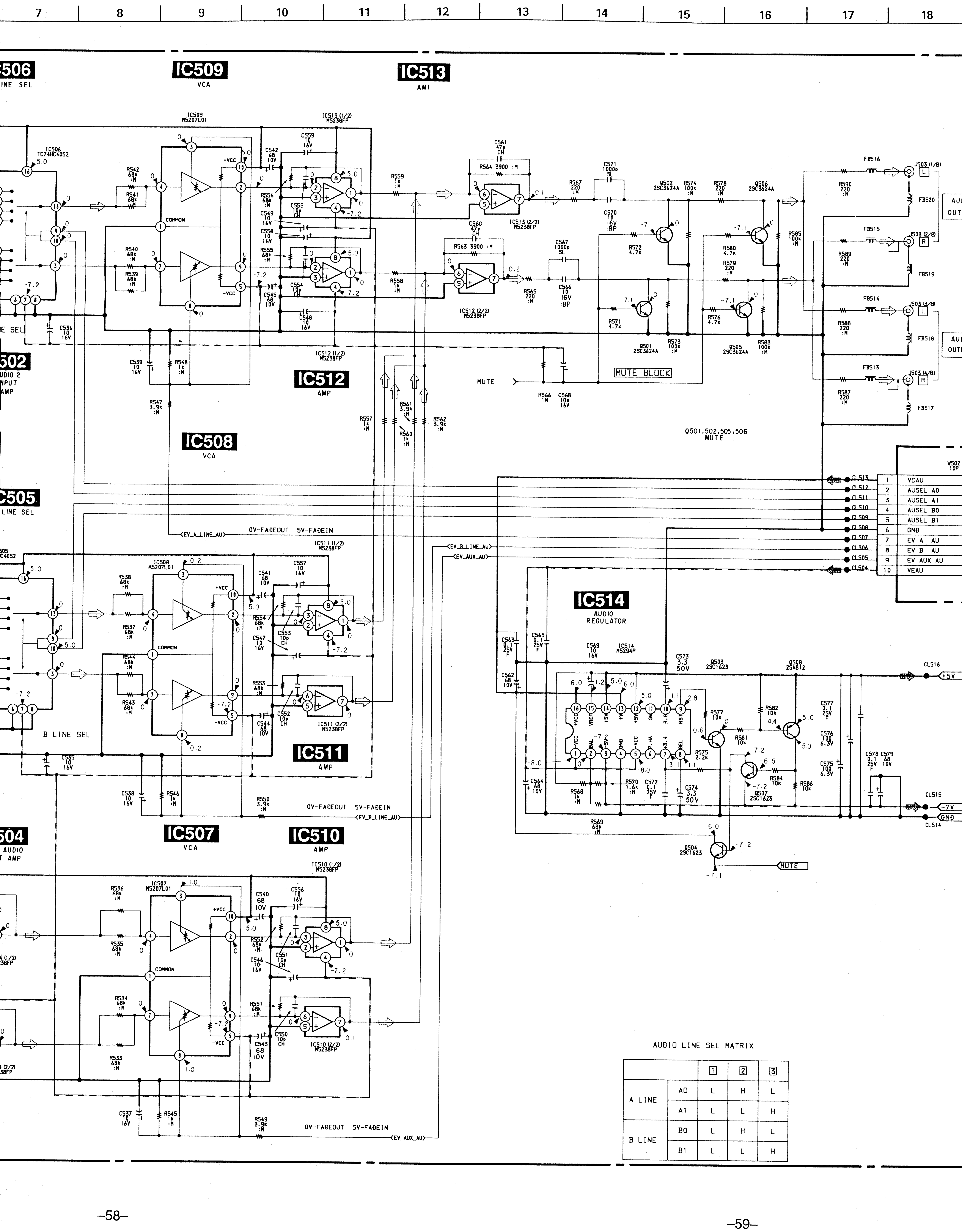
- * : indicated by the color red.

SOURCE SIGNAL
ANALOGUE

VIDEO SIGNAL			AUDIO SIGNAL
CHROMA	Y	Y/CHROMA	
⇨	⇨»	⇨⋙	⇨

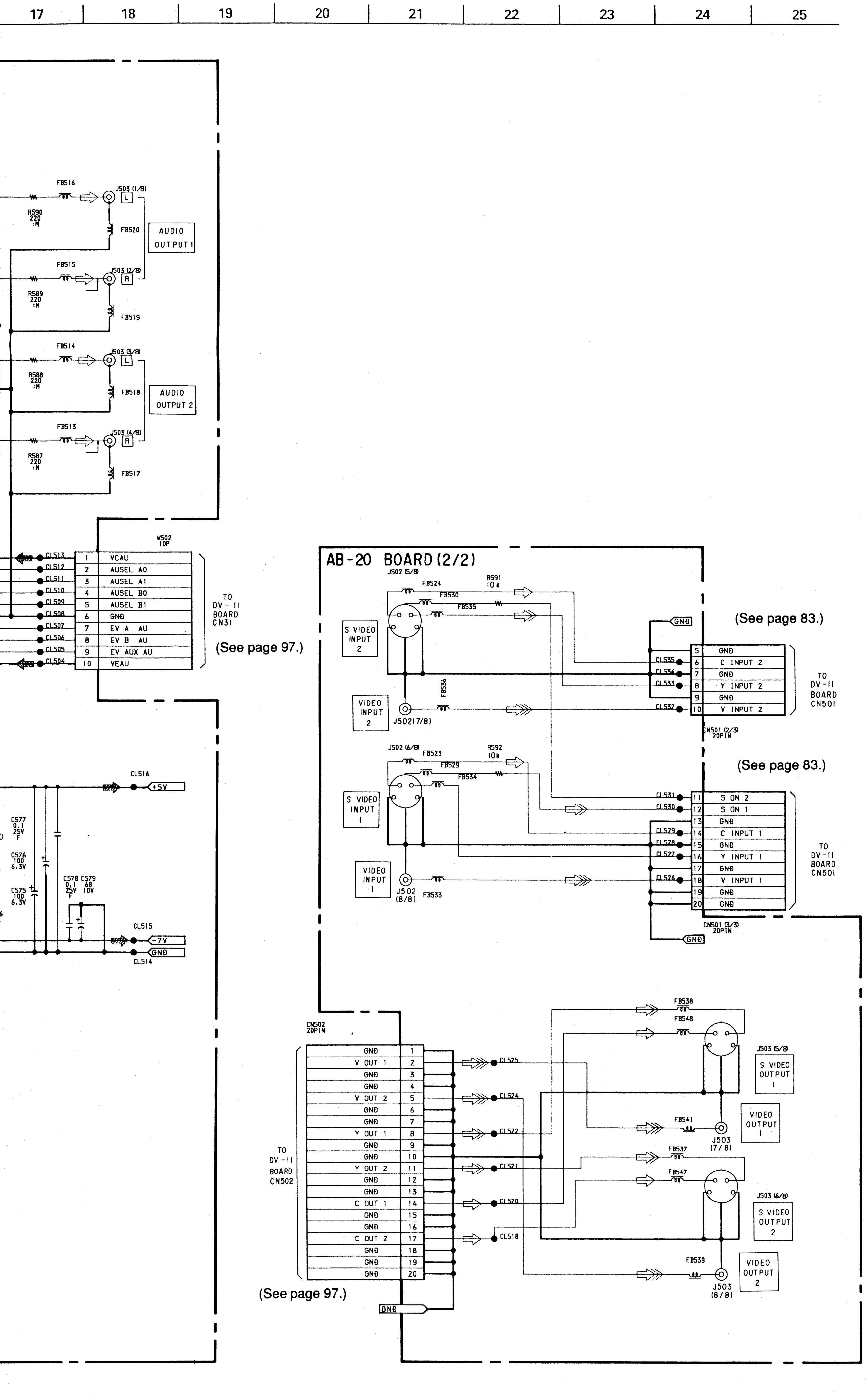
DIGITAL

	VIDEO SIGNAL			VIDEO CONTROL	AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA		
WRITTEN IN	DIG ➡	DIG ➡»	DIG ➡⋙	➤	DIG ➡
READ OUT	DIG ⇨	DIG ⇨»	DIG ⇨⋙	⊳	DIG ⇨


7
8
9
10
11
12
13
14
15
16
17
18
IC506
LINE SEL
IC509
VCA
IC513
AMP
IC509 M5207L01
IC513 (1/2) M5238FP
IC506 TC74HC4052
COMMON
+VCC
-VCC
IC513 (2/2) M5238FP
IC512 (2/2) M5238FP
IC512 (1/2) M5238FP
IC502
AUDIO 2 INPUT AMP
IC512
AMP
IC508
VCA
IC505
LINE SEL
MUTE
MUTE BLOCK
Q502 2SC3624A
Q506 2SC3624A
Q501 2SC3624A
Q505 2SC3624A
Q501,502,505,506 MUTE
J503 (1/8) L
J503 (2/8) R
J503 (3/8) L
J503 (4/8) R
FB516
FB520
FB515
FB519
FB514
FB518
FB513
FB517
AUDIO OUT
V502 10P
CL513
CL512
CL511
CL510
CL509
CL508
CL507
CL506
CL505
CL504
1 VCAU
2 AUSEL A0
3 AUSEL A1
4 AUSEL B0
5 AUSEL B1
6 GND
7 EV A AU
8 EV B AU
9 EV AUX AU
10 VEAU
OV-FADEOUT 5V-FADEIN
EV_A_LINE_AU
EV_B_LINE_AU
EV_AUX_AU
IC511 (1/2) M5238FP
IC511 (2/2) M5238FP
IC508 M5207L01
IC511
AMP
B LINE SEL
IC514
AUDIO REGULATOR
IC514 M5294P
Q503 2SC1623
Q508 2SA812
Q507 2SC1623
Q504 2SC1623
CL516 +5V
CL515 -7V
CL514 GND
MUTE
IC504
AUDIO INPUT AMP
IC507
VCA
IC510
AMP
IC507 M5207L01
IC510 (1/2) M5238FP
IC510 (2/2) M5238FP

AUDIO LINE SEL MATRIX

		1	2	3
A LINE	A0	L	H	L
	A1	L	L	H
B LINE	B0	L	H	L
	B1	L	L	H


17
18
19
20
21
22
23
24
25
FB516
J503 (1/8)
L
R590
220
:M
FB520
AUDIO
OUTPUT 1
FB515
J503 (2/8)
R
R589
220
:M
FB519
FB514
J503 (3/8)
L
R588
220
:M
FB518
AUDIO
OUTPUT 2
FB513
J503 (4/8)
R
R587
220
:M
FB517
W502
10P
CL513
CL512
CL511
CL510
CL509
CL508
CL507
CL506
CL505
CL504
1 VCAU
2 AUSEL A0
3 AUSEL A1
4 AUSEL B0
5 AUSEL B1
6 GND
7 EV A AU
8 EV B AU
9 EV AUX AU
10 VEAU
TO
DV-11
BOARD
CN31
CL516
+5V
C577
0.1
25V
F
C576
100
6.3V
C575
100
6.3V
C578 C579
0.1 68
25V 10V
F
CL515
-7V
GND
CL514
AB-20 BOARD (2/2)
J502 (5/8)
FB524
R591
10k
FB530
FB535
S VIDEO
INPUT
2
FB536
VIDEO
INPUT
2
J502 (7/8)
GND
CL535
CL534
CL533
CL532
5 GND
6 C INPUT 2
7 GND
8 Y INPUT 2
9 GND
10 V INPUT 2
TO
DV-11
BOARD
CN501
CN501 (2/3)
20PIN
J502 (6/8)
FB523
R592
10k
FB529
FB534
S VIDEO
INPUT
1
VIDEO
INPUT
1
J502
(8/8)
FB533
CL531
CL530
CL529
CL528
CL527
CL526
11 S ON 2
12 S ON 1
13 GND
14 C INPUT 1
15 GND
16 Y INPUT 1
17 GND
18 V INPUT 1
19 GND
20 GND
TO
DV-11
BOARD
CN501
CN501 (3/3)
20PIN
GND
CN502
20PIN
GND 1
V OUT 1 2
GND 3
GND 4
V OUT 2 5
GND 6
GND 7
Y OUT 1 8
GND 9
GND 10
Y OUT 2 11
GND 12
GND 13
C OUT 1 14
GND 15
GND 16
C OUT 2 17
GND 18
GND 19
GND 20
TO
DV-11
BOARD
CN502
CL525
CL524
CL522
CL521
CL520
CL518
FB538
FB548
J503 (5/8)
S VIDEO
OUTPUT
1
FB541
VIDEO
OUTPUT
1
J503
(7/8)
FB537
FB547
J503 (6/8)
S VIDEO
OUTPUT
2
FB539
VIDEO
OUTPUT
2
J503
(8/8)
GND

(See page 97.)

(See page 83.)

(See page 83.)

(See page 97.)

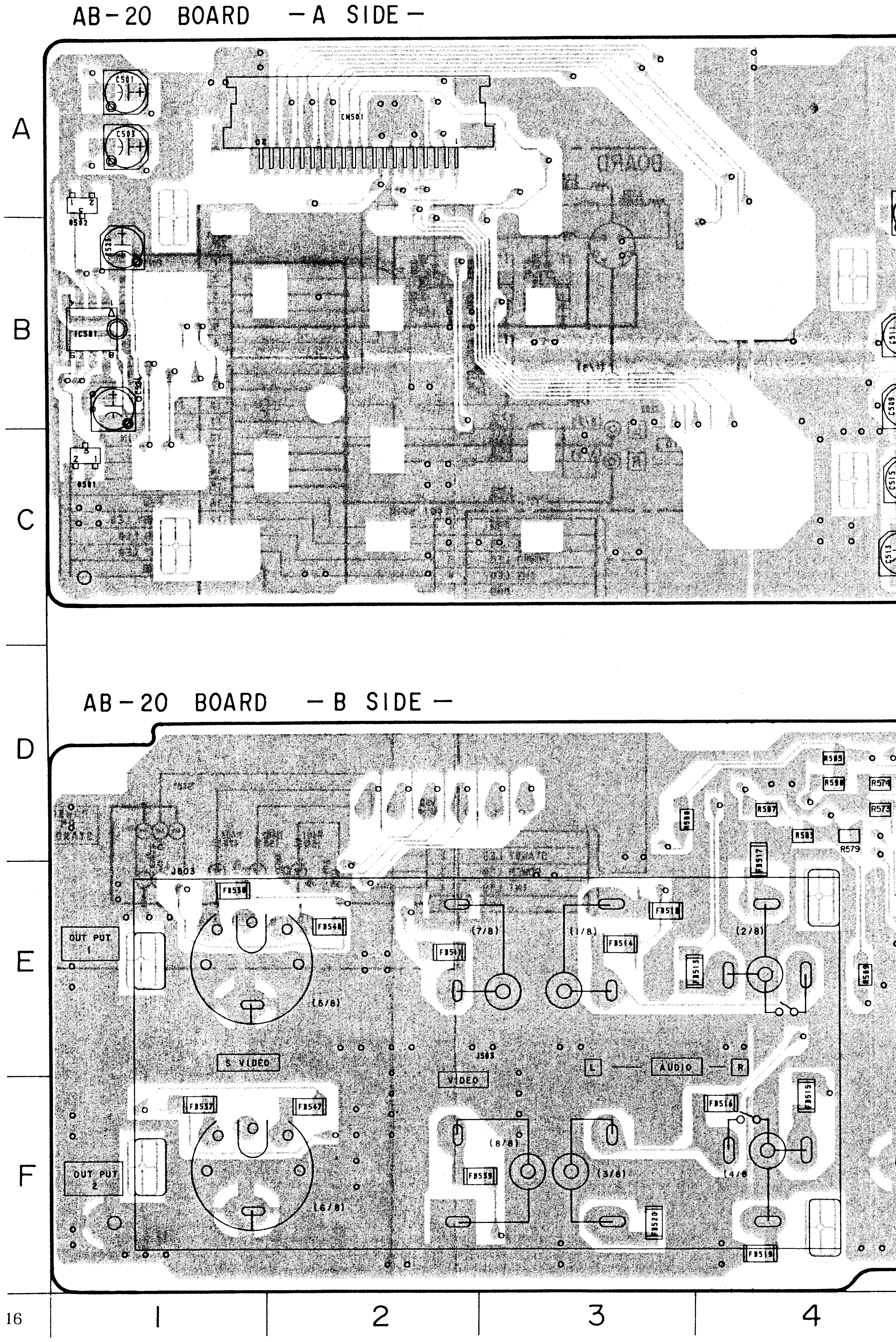
AB-20 (AUDIO) PRINTED WIRING BOARD

– Ref No. AB-20 BOARD : 5,000 Series –

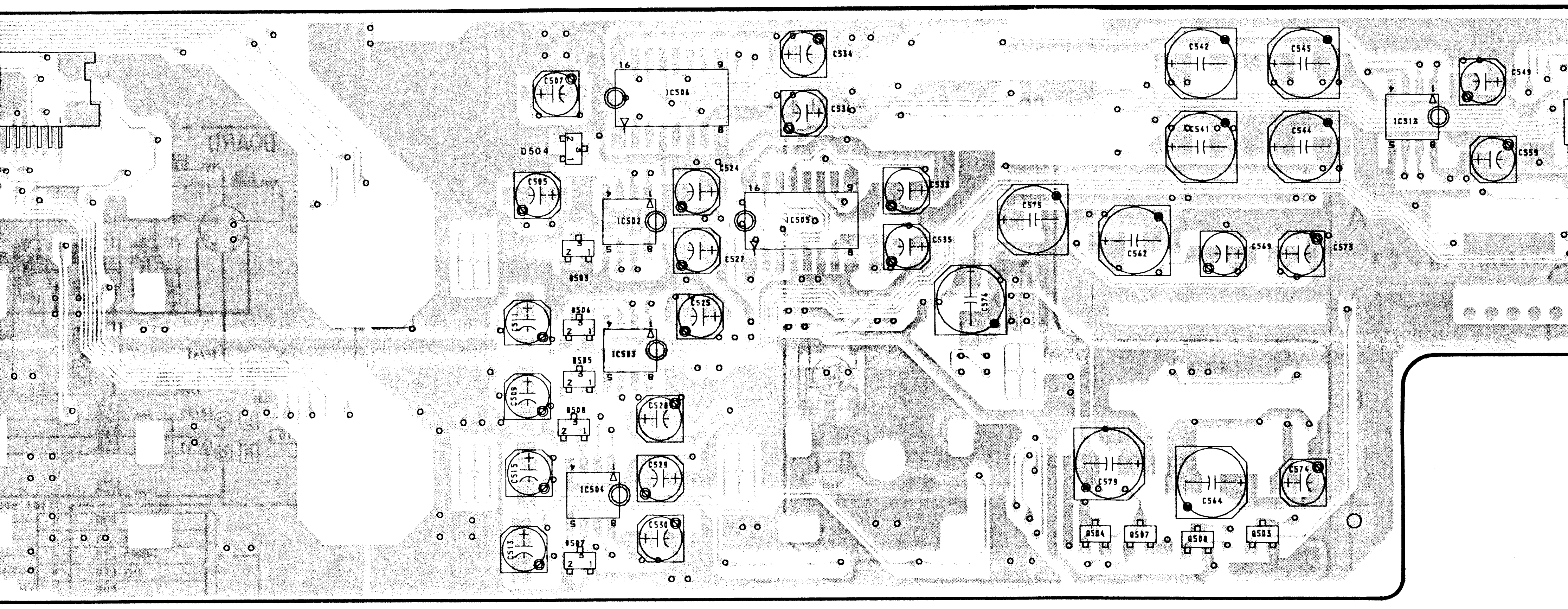
AB-20 BOARD

CN501	A-2	(A)
CN502	A-14	(A)
D501	C-1	(A)
D502	A-1	(A)
D503	B-5	(A)
D504	A-5	(A)
D505	B-5	(A)
D506	B-5	(A)
D507	C-5	(A)
D508	C-5	(A)
IC501	B-1	(A)
IC502	B-5	(A)
IC503	B-5	(A)
IC504	C-5	(A)
IC505	B-6	(A)
IC506	A-5	(A)
IC507	E-7	(B)
IC508	D-10	(B)
IC509	D-10	(B)
IC510	A-11	(A)
IC511	A-10	(A)
IC512	A-9	(A)
IC513	A-8	(A)
IC514	E-9	(B)
Q501	A-12	(A)
Q502	A-12	(A)
Q503	C-8	(A)
Q504	C-7	(A)
Q505	A-12	(A)
Q506	A-12	(A)
Q507	C-7	(A)
Q508	C-7	(A)

(A) and (B) after location No. show the side of printed wiring board.

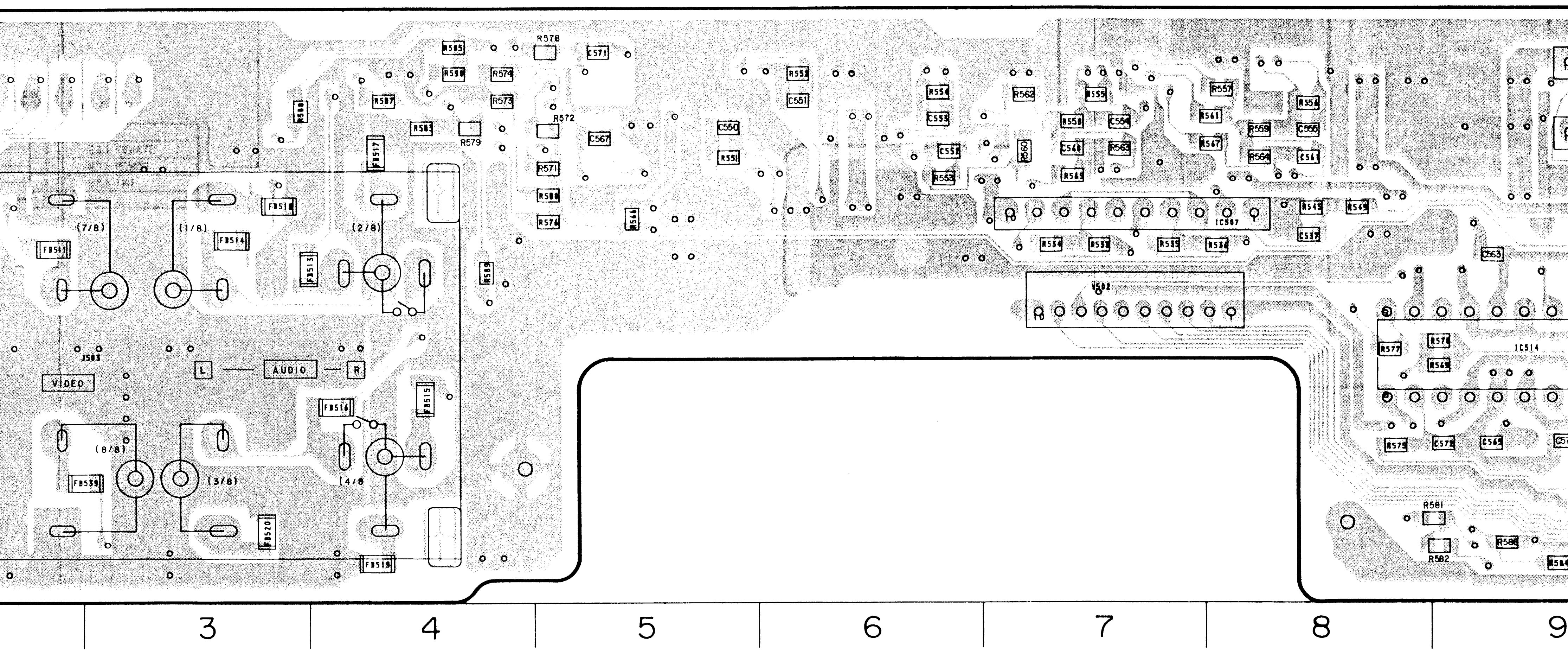

AB-20 BOARD -A SIDE-
AB-20 BOARD -B SIDE-
A
B
C
D
E
F
16
1
2
3
4
CN501
C501
C503
D502
IC501
D501
J503
OUT PUT 1
OUT PUT 2
S VIDEO
VIDEO
L
AUDIO
R
(7/8)
(1/8)
(2/8)
(5/8)
(8/8)
(3/8)
(4/8)
(6/8)
FB538
FB544
FB537
FB547
FB539
FB514
FB516
FB518
FB519
FB520
R579

E –

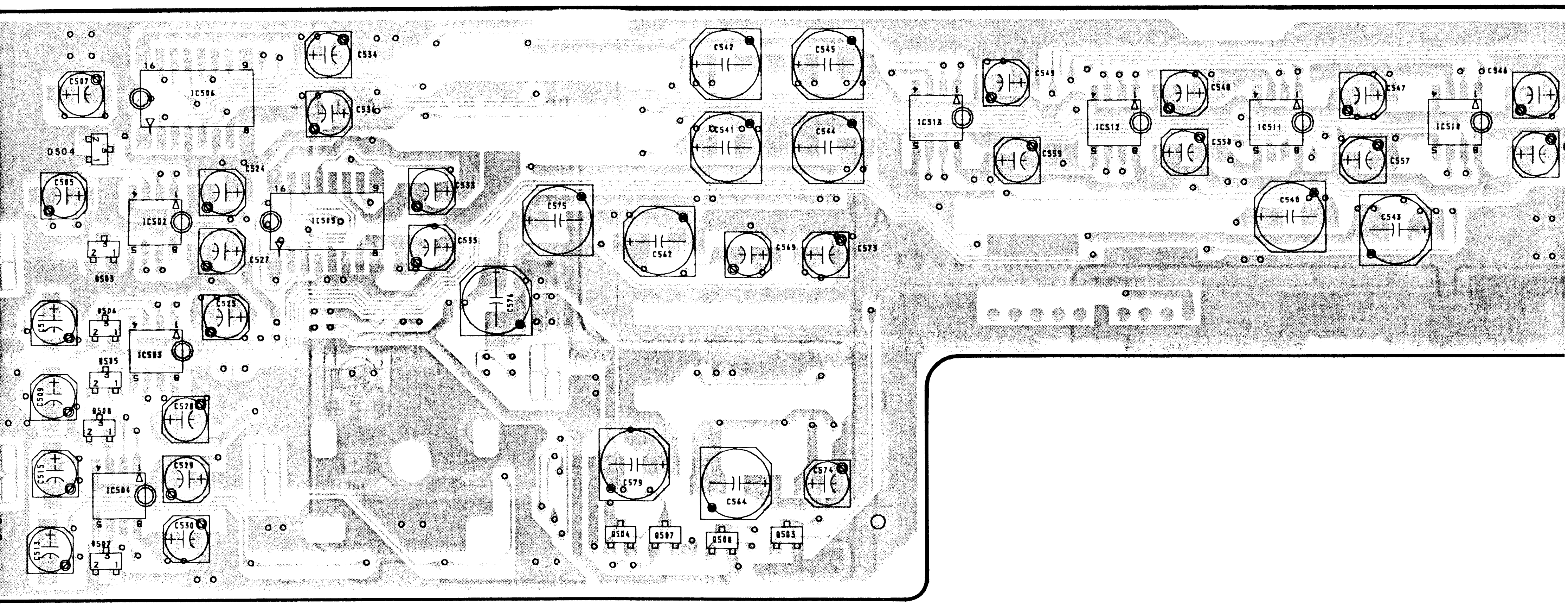


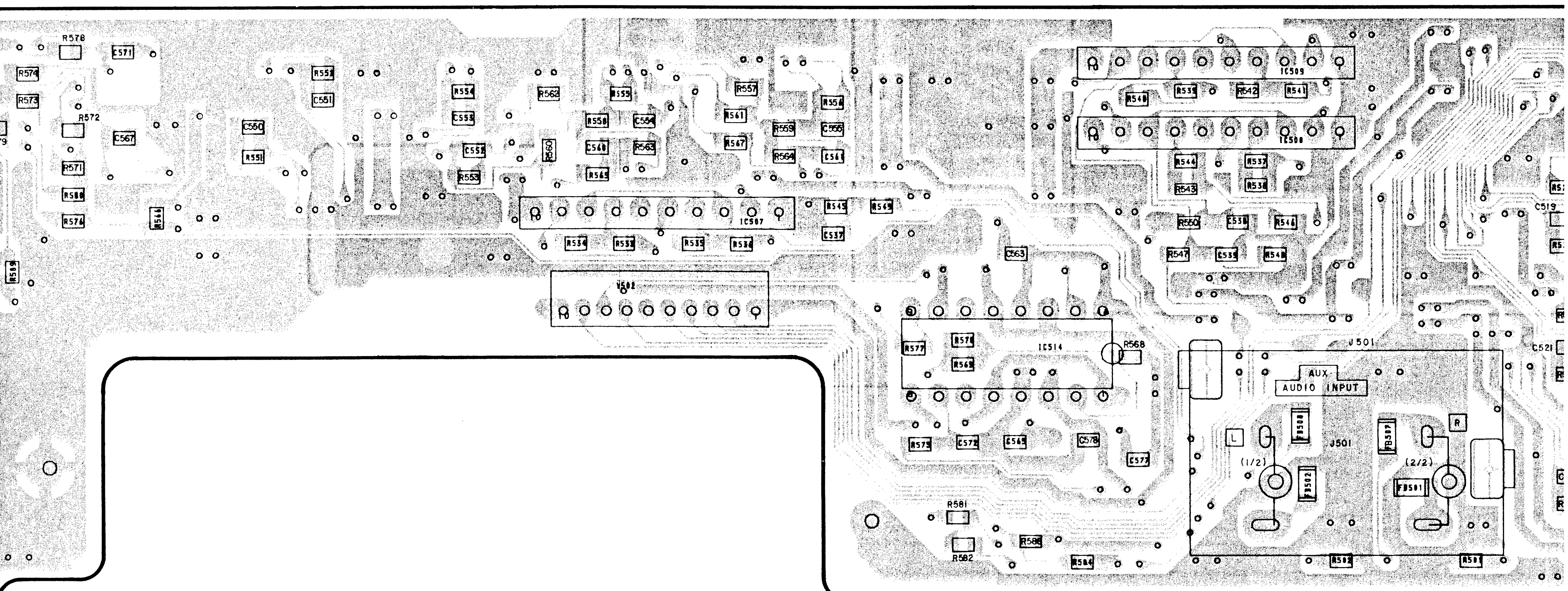
C507
IC506
D504
C534
C531
C505
IC502
Q503
C524
IC505
C527
C533
C535
C575
C574
C542
C541
C545
C544
C562
C569
C573
IC513
C549
C559
C511
Q506
Q505
IC503
C525
C510
Q508
C528
C515
IC504
C529
C513
Q507
C530
C579
C564
C576
Q504
Q507
Q508
Q503

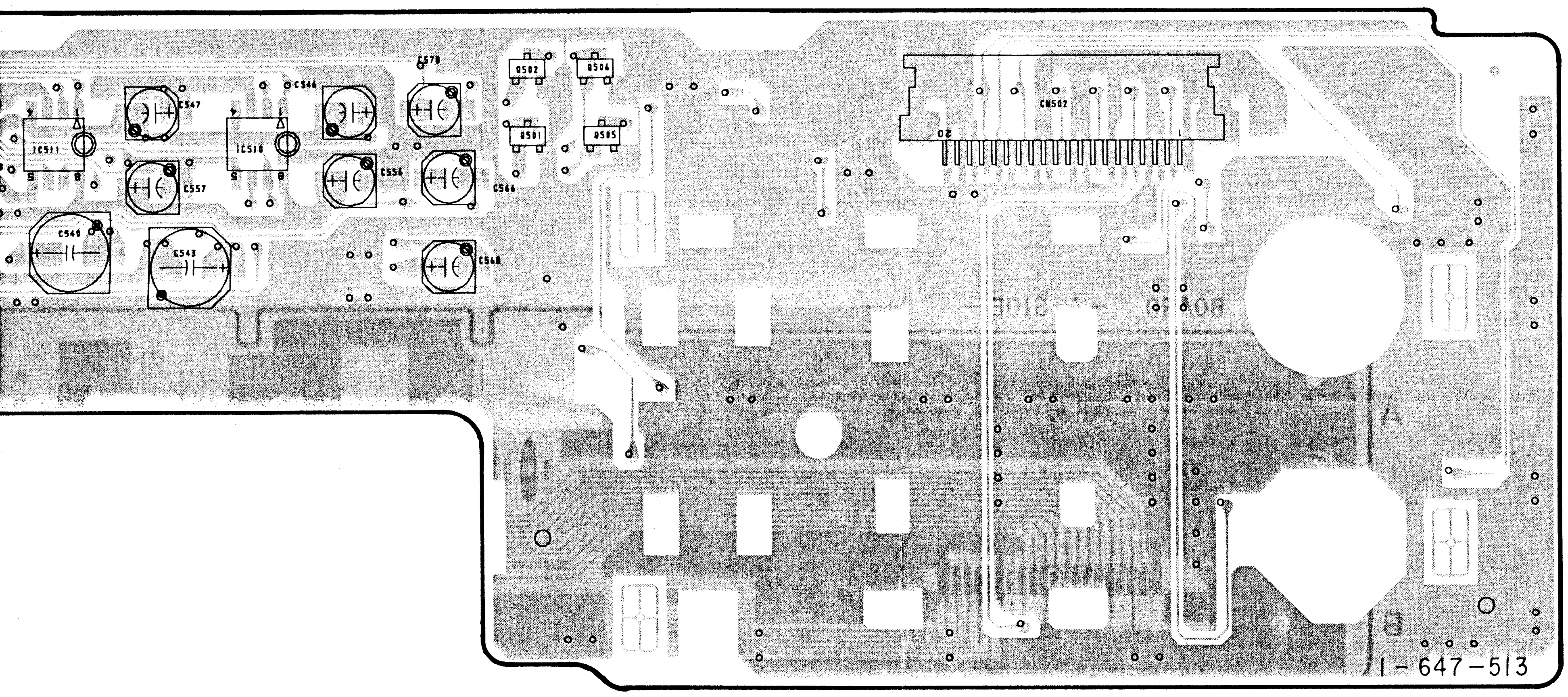
DE –

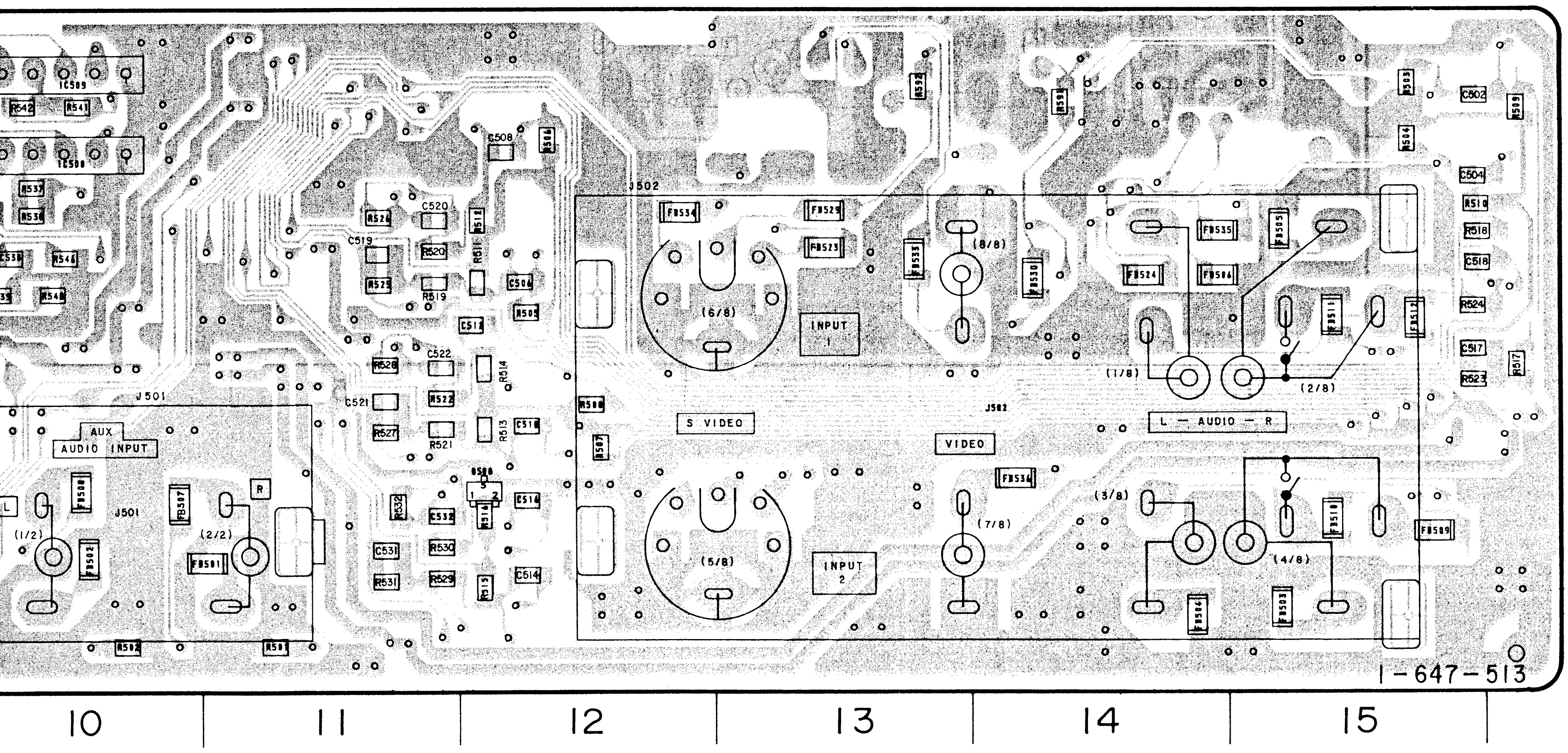


R585
R578
C571
R580
R574
R587
R573
R583
R579
R572
C567
R571
R588
R576
R566
R559
R552
C551
C550
R551
R554
C553
C552
R555
R562
R555
C554
R558
C560
R563
R565
IC507
R534
R533
R535
R536
R557
R561
R569
C566
R567
R564
C561
R556
R545
R549
R537
VR502
C563
R577
R576
R569
IC514
R575
C572
C565
R581
R582
R586
FB511
FB512
FB514
FB513
FB517
FB516
FB515
FB539
FB520
FB519
(7/8)
(1/8)
(2/8)
(8/8)
(3/8)
(4/8)
J503
VIDEO
L
AUDIO
R
3
4
5
6
7
8
9


C507
IC506
C534
C536
D504
C505
IC502
C524
C527
IC505
C533
C535
Q503
C525
IC503
C528
C529
IC504
C530
C542
C541
C545
C544
C575
C562
C574
C569
C573
C579
C564
C576
Q504
Q507
Q508
Q503
IC513
C549
C559
IC512
C548
C558
IC511
C547
C557
C540
C543
IC510
C546


R578
C571
R574
R573
R572
C567
R571
R580
R576
R552
C551
C550
R551
R554
C553
C552
R553
R562
R555
R558
R560
R565
C554
R563
R557
R561
R567
R559
R564
C555
C561
R556
R545
R549
C537
IC507
R534
R533
R535
R536
V502
C563
IC509
R540
R539
R542
R541
IC508
R544
R537
R543
R538
R550
C538
R546
R547
C539
R548
R577
R570
R569
IC514
R568
R575
C572
C565
C578
C577
R581
R582
R586
R584
J501
AUX
AUDIO INPUT
L
R
(1/2)
(2/2)
R503
R502
R507
FR501
R591
C519
C521
5
6
7
8
9
10
11


C570
Q502
Q504
Q501
Q505
C547
C546
IC511
IC510
C557
C556
C566
C549
C543
C548
CN502
20
1
1-647-513

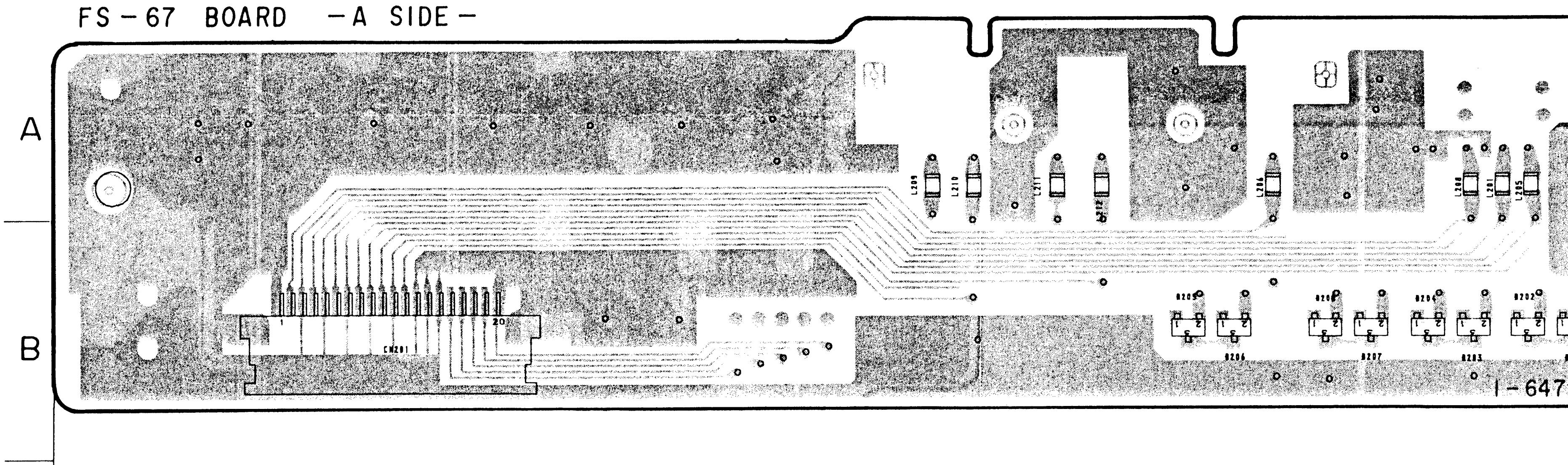

IC509
IC508
R542
R541
C508
R506
C520
C519
R520
R519
J502
FB534
FB529
FB523
R533
(8/8)
R530
FB535
FB505
FB524
FB506
(6/8)
INPUT
1
FB511
(1/8)
(2/8)
J501
AUX
AUDIO INPUT
S VIDEO
J502
VIDEO
L — AUDIO — R
L
R
FB508
FB507
(1/2)
(2/2)
FB501
FB502
C531
R530
R529
C514
(7/8)
(5/8)
INPUT
2
(3/8)
(4/8)
FB510
FB509
FB504
FB503
C502
C504
R510
R518
C518
R524
C517
R523
R517
1-647-513
10
11
12
13
14
15

AU

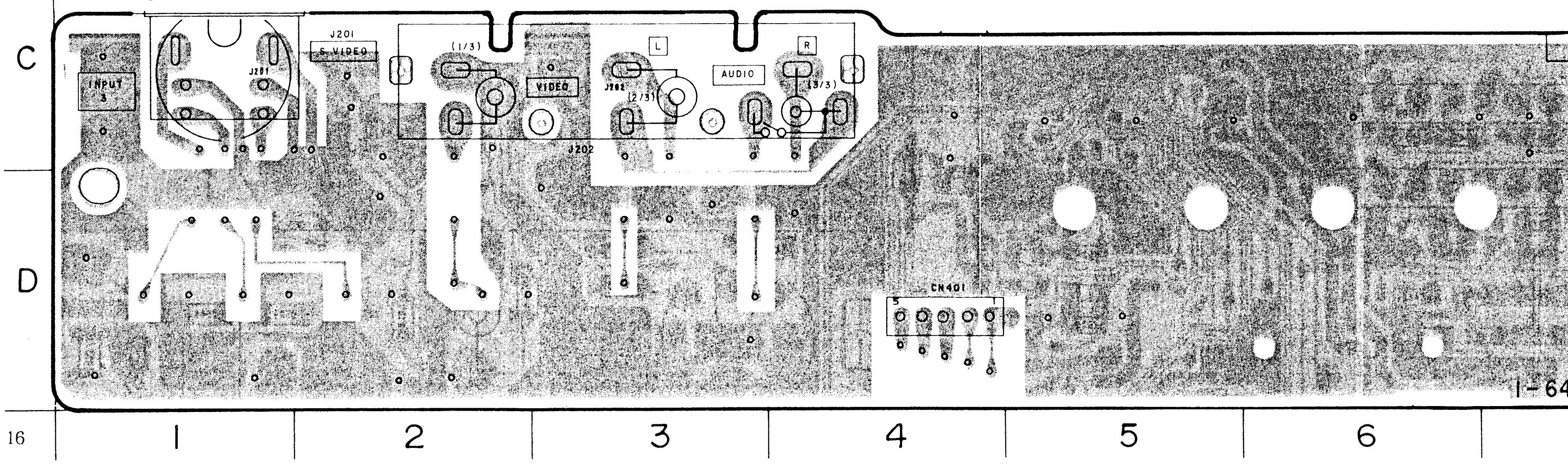
FS-67 (FRONT INPUT), PS-309 (POWER LED) SCHEMATIC DIAGRAMS/PRINTED WIRING BOARDS

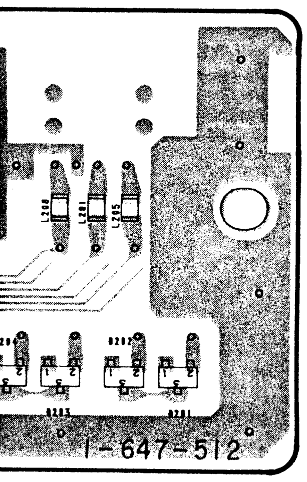
– Ref No. FS-67 BOARD : 2,000 Series, PS-309 BOARD : 4,000 Series –

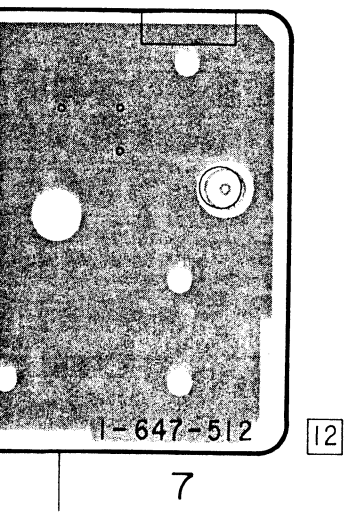
FS – 67 BOARD – A SIDE –


A
B
CN201
1
20
L209
L210
L211
L212
L206
L208
L201
L205
I – 647

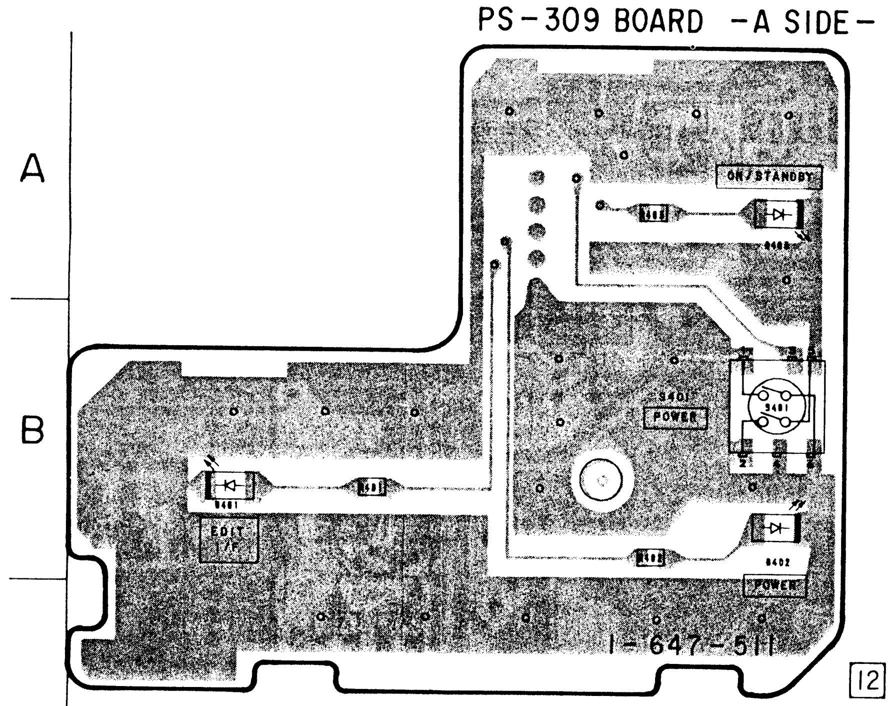
FS – 67 BOARD – B SIDE –


C
D
INPUT 3
J201
S VIDEO
(1/3)
VIDEO
J202
L
(2/3)
AUDIO
R
(3/3)
CN401
5
I – 64
16
1
2
3
4
5
6

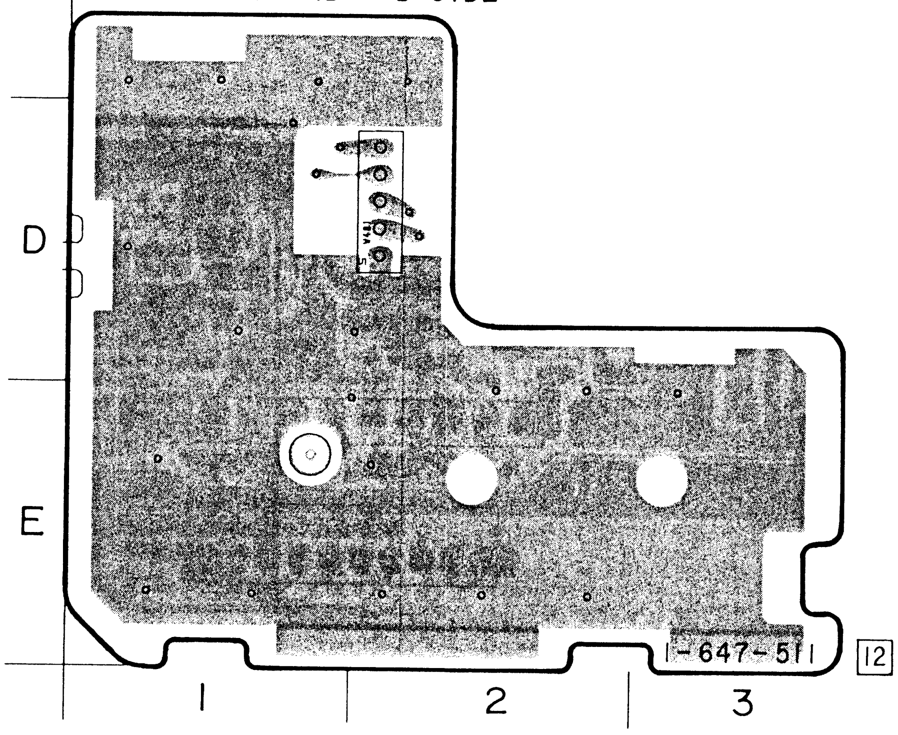


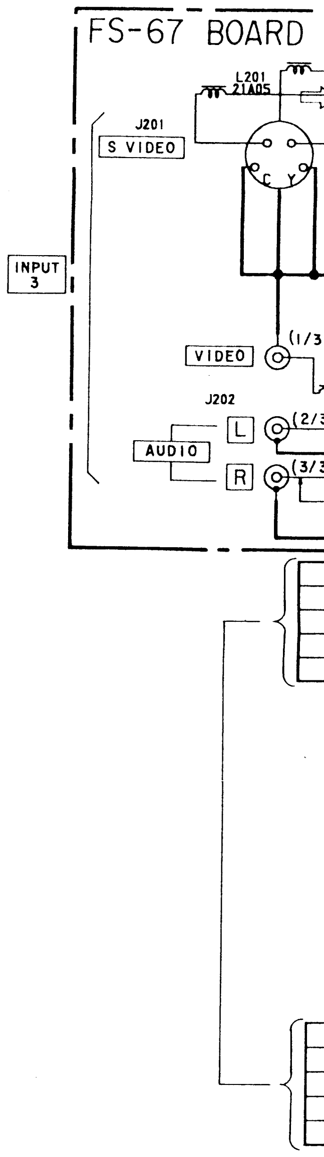

1-647-512
12
7

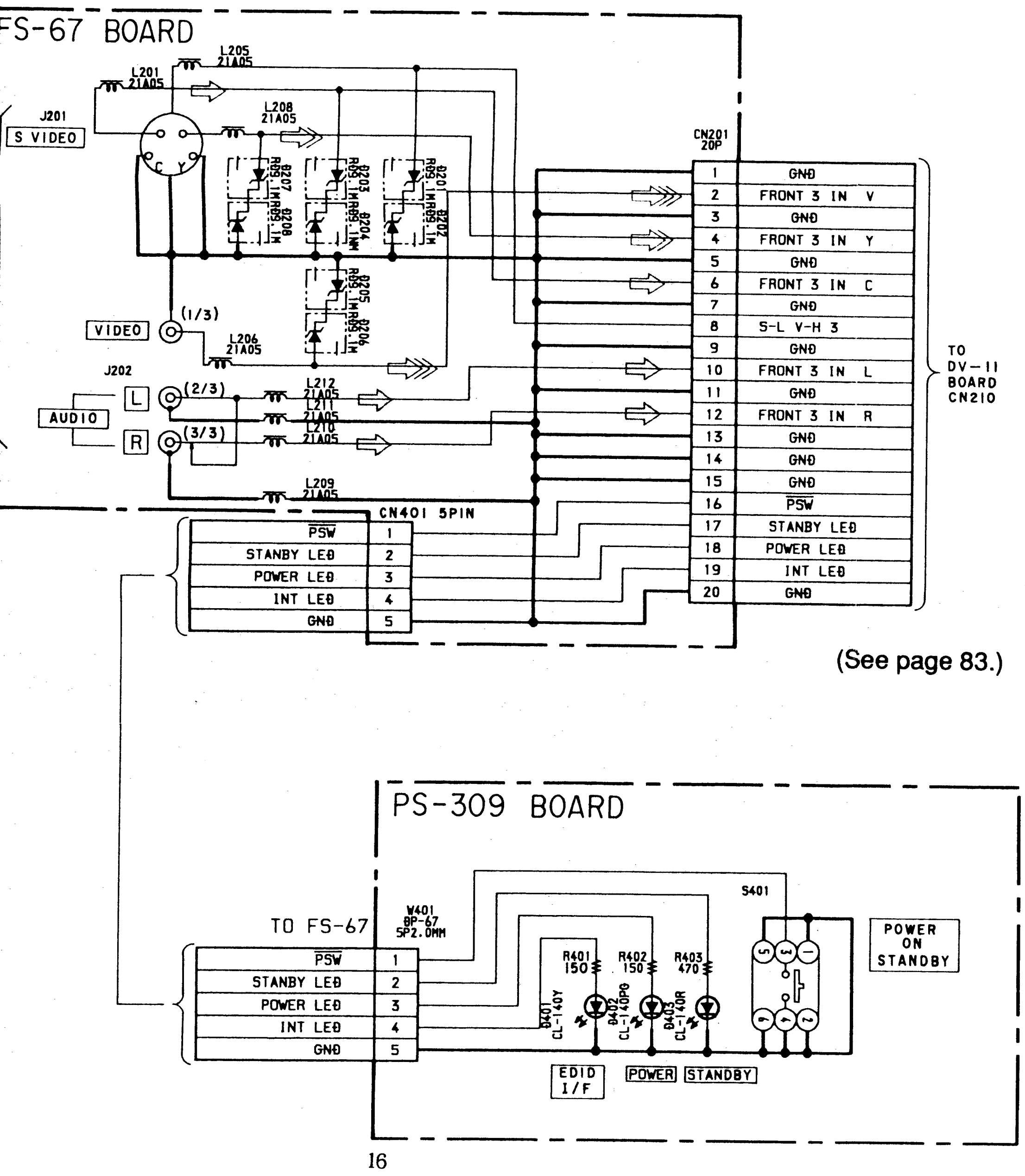
PS-309 BOARD -A SIDE-


A
B
C
ON/STANDBY
S401
POWER
EDIT
POWER
1-647-511
12

PS-309 BOARD -B SIDE-


D
E
1-647-511
12
1
2
3


FS-67 BOARD
L201
21A05
J201
S VIDEO
INPUT 3
VIDEO
(1/3
J202
AUDIO
L
R
(2/3
(3/3


FS-67 BOARD
L201 21A05
L205 21A05
L208 21A05
J201
S VIDEO
D207 D208 RD5.1MB
D203 D204 RD5.1MB
D201 D202 RD5.1MB
D205 D206 RD5.1MB
VIDEO
(1/3)
L206 21A05
J202
AUDIO
L
R
(2/3)
(3/3)
L212 21A05
L211 21A05
L210 21A05
L209 21A05
CN201 20P
1 GND
2 FRONT 3 IN V
3 GND
4 FRONT 3 IN Y
5 GND
6 FRONT 3 IN C
7 GND
8 S-L V-H 3
9 GND
10 FRONT 3 IN L
11 GND
12 FRONT 3 IN R
13 GND
14 GND
15 GND
16 PSW
17 STANBY LED
18 POWER LED
19 INT LED
20 GND
TO DV-11 BOARD CN210
CN401 5PIN
PSW 1
STANBY LED 2
POWER LED 3
INT LED 4
GND 5
PS-309 BOARD
TO FS-67
W401 BP-67 5P2.0MM
PSW 1
STANBY LED 2
POWER LED 3
INT LED 4
GND 5
S401
R401 150
R402 150
R403 470
D401 CL-140Y
D402 CL-140PG
D403 CL-140R
EDID I/F
POWER
STANDBY
POWER ON STANDBY
16

(See page 83.)

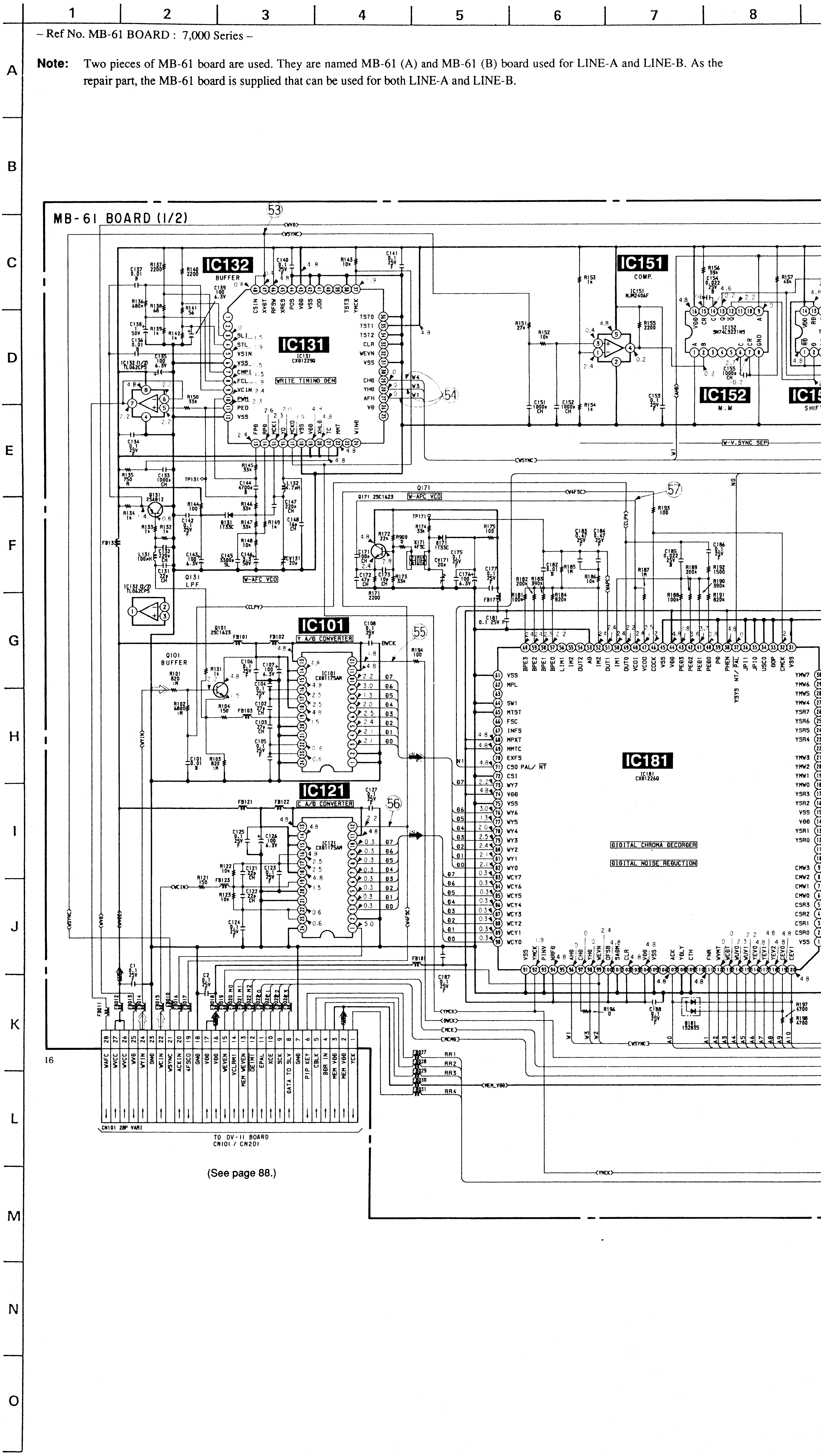
SOURCE SIGNAL
ANALOGUE

VIDEO SIGNAL			AUDIO SIGNAL
CHROMA	Y	Y/CHROMA	
⇨	⇨	⇨	⇨

MB-61 (A/B LINE MEMORY) SCHEMATIC DIAGRAM (1/2)

– Ref No. MB-61 BOARD : 7,000 Series –

Note: Two pieces of MB-61 board are used. They are named MB-61 (A) and MB-61 (B) board used for LINE-A and LINE-B. As the repair part, the MB-61 board is supplied that can be used for both LINE-A and LINE-B.

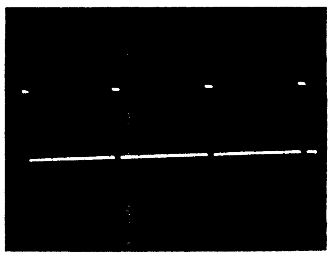


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
MB-61 BOARD (1/2)
(53)
(54)
(55)
(56)
(57)
IC132
BUFFER
IC131
CX012290
WRITE TIMING GEN
IC151
COMP.
IC152
M.M
IC101
Y A/D CONVERTER
IC121
C A/D CONVERTER
IC181
CXB12260
DIGITAL CHROMA DECORDER
DIGITAL NOISE REDUCTION
Q101 BUFFER
Q131 LPF
Q171 W-APC VCO
W-V.SYNC SEP
CN101 28P VARI
TO DV-11 BOARD CN101 / CN201
16

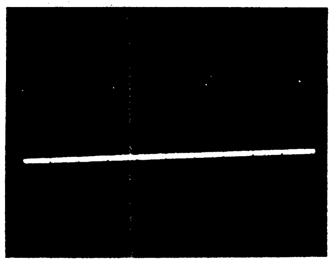
(See page 88.)

MB-61 BOARD 1/2

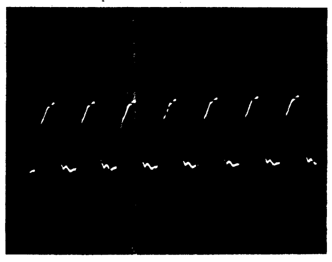
(53) IC131 ㊼,㊽ 2V/20μs



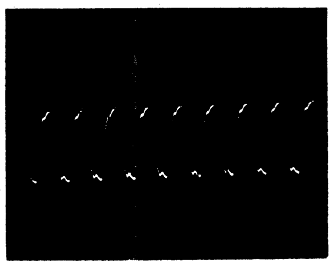
(54) IC131 ㉗,㉘,㉙2V/20μs



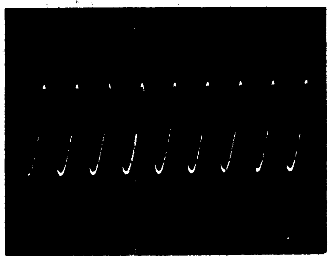
(55) IC101 ⑫ 2V/0.05μs



(56) IC121 ⑫ 2V/0.05μs



(57) IC181 ㊽ 0.5V/0.05μs

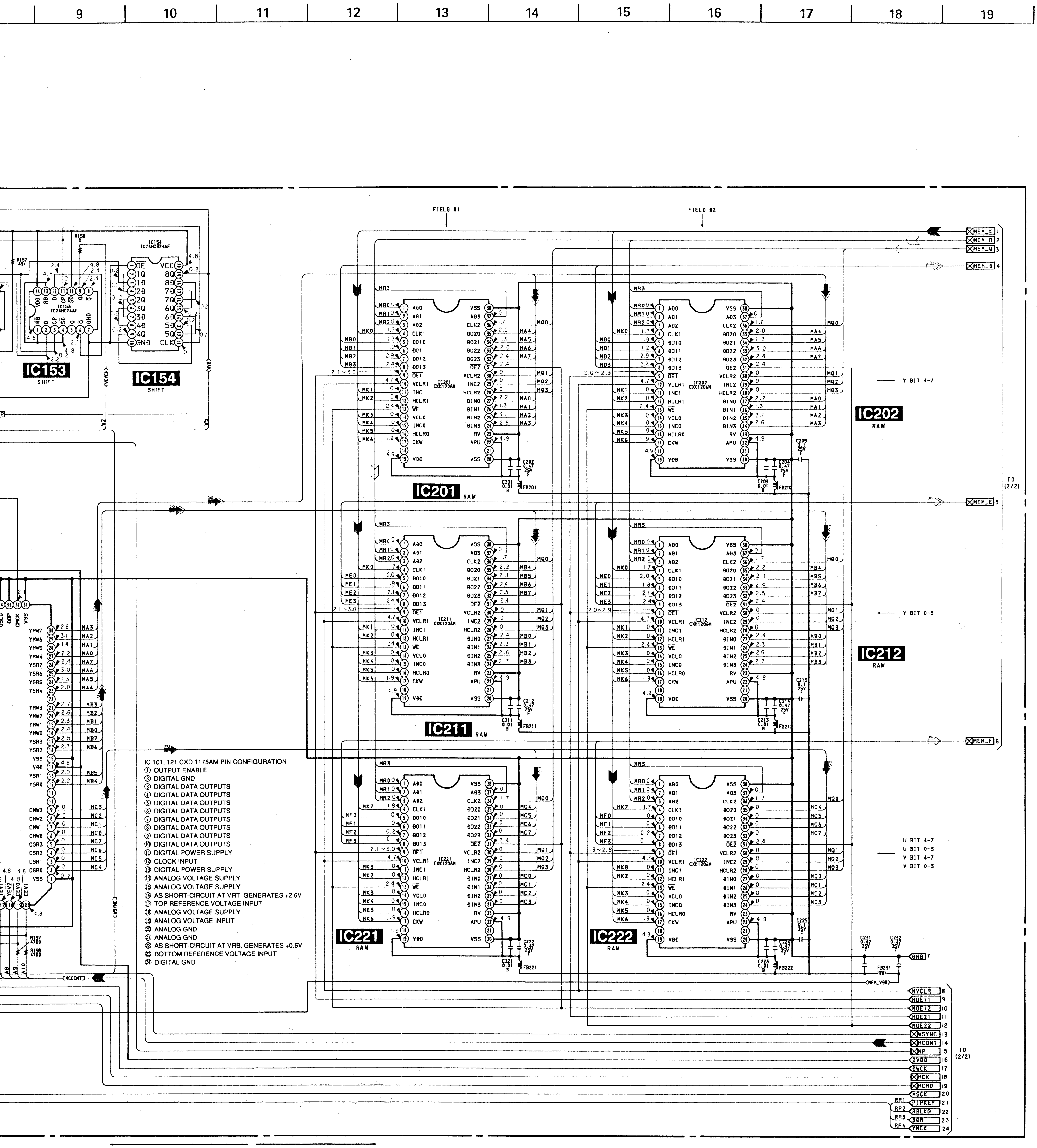


SOURCE SIGNAL
ANALOGUE

VIDEO SIGNAL			AUDIO SIGNAL
CHROMA	Y	Y/CHROMA	
⇨	⇨		

DIGITAL

	VIDEO SIGNAL			VIDEO CONTROL	AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA		
WRITTEN IN	DIG ➡	DIG ➡		➤	
READ OUT	DIG ⇨	DIG ⇨		▷	


9
10
11
12
13
14
15
16
17
18
19
IC153
SHIFT
TC74HC74AF
IC154
SHIFT
TC74HC374AF
R156
R157
FIELD #1
FIELD #2
IC201
RAM
CXK1206M
IC202
RAM
IC211
RAM
IC212
RAM
IC221
RAM
IC222
RAM
Y BIT 4-7
Y BIT 0-3
U BIT 4-7
U BIT 0-3
V BIT 4-7
V BIT 0-3
TO (2/2)
MEM_K 1
MEM_R 2
MEM_Q 3
MEM_B 4
MEM_E 5
MEM_F 6
GND 7
MVCLR 8
MOE11 9
MOE12 10
MOE21 11
MOE22 12
WSYNC 13
MCONT 14
NP 15
DVDD 16
BWCK 17
MCK 18
MCMD 19
MSCK 20
PIPKEY 21
RBLKG 22
BBR 23
YNCK 24
RR1
RR2
RR3
RR4
FB201
FB202
FB211
FB212
FB221
FB222
FB231
MEM_VDD
MCCONT

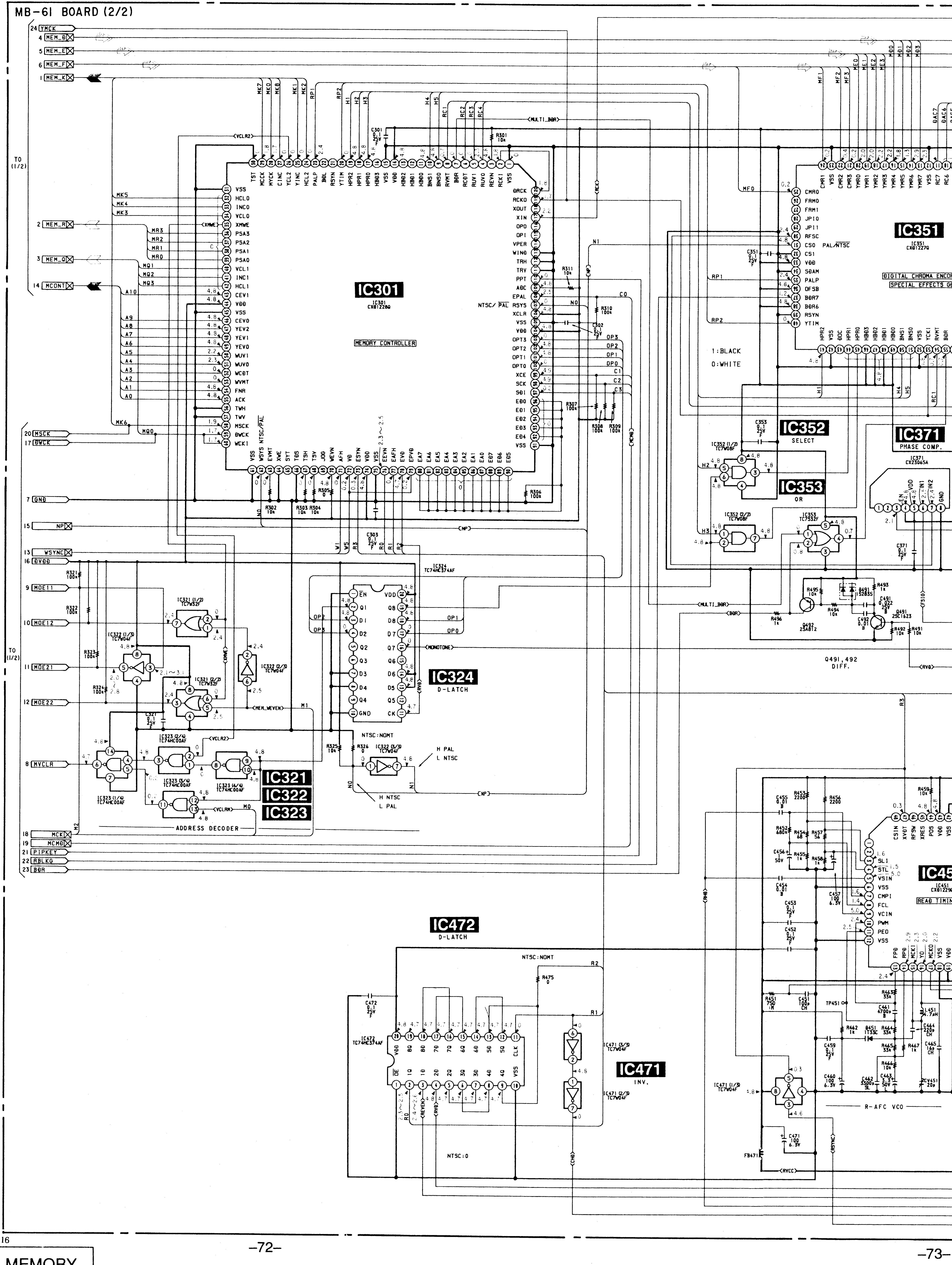
IC 101, 121 CXD 1175AM PIN CONFIGURATION
① OUTPUT ENABLE
② DIGITAL GND
③ DIGITAL DATA OUTPUTS
④ DIGITAL DATA OUTPUTS
⑤ DIGITAL DATA OUTPUTS
⑥ DIGITAL DATA OUTPUTS
⑦ DIGITAL DATA OUTPUTS
⑧ DIGITAL DATA OUTPUTS
⑨ DIGITAL DATA OUTPUTS
⑩ DIGITAL DATA OUTPUTS
⑪ DIGITAL POWER SUPPLY
⑫ CLOCK INPUT
⑬ DIGITAL POWER SUPPLY
⑭ ANALOG VOLTAGE SUPPLY
⑮ ANALOG VOLTAGE SUPPLY
⑯ AS SHORT-CIRCUIT AT VRT, GENERATES +2.6V
⑰ TOP REFERENCE VOLTAGE INPUT
⑱ ANALOG VOLTAGE SUPPLY
⑲ ANALOG VOLTAGE INPUT
⑳ ANALOG GND
㉑ ANALOG GND
㉒ AS SHORT-CIRCUIT AT VRB, GENERATES +0.6V
㉓ BOTTOM REFERENCE VOLTAGE INPUT
㉔ DIGITAL GND

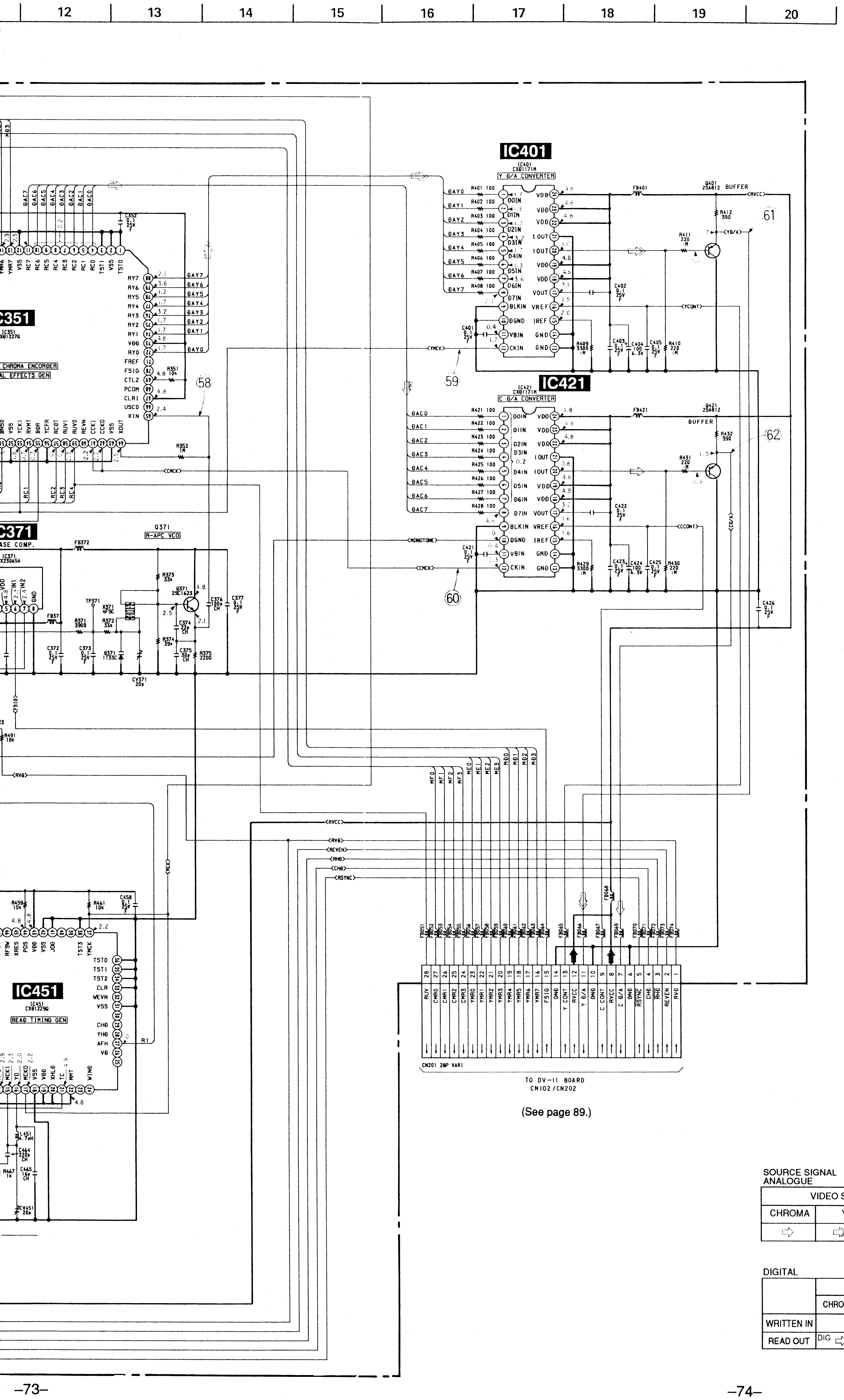
WRITE PROCESS　　FRAME MEMORY

MB-61 (A/B LINE MEMORY) SCHEMATIC DIAGRAM (2/2)

– Ref No. MB-61 BOARD : 7,000 Series –

Note: Two pieces of MB-61 board are used. They are named MB-61 (A) and MB-61 (B) board used for LINE-A and LINE-B. As the repair part, the MB-61 board is supplied that can be used for both LINE-A and LINE-B.

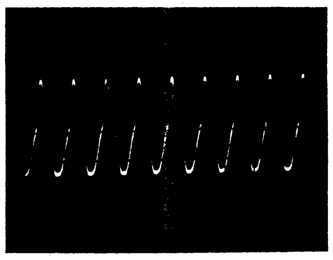

MB-61 BOARD (2/2)
TO (1/2)
24 YMCK
4 MEM_B
5 MEM_E
6 MEM_F
1 MEM_K
2 MEM_R
3 MEM_Q
14 MCONT
20 MSCK
17 DWCK
7 GND
15 NP
13 WSYNC
16 DVDD
9 MOE11
10 MOE12
11 MOE21
12 MOE22
8 MVCLR
18 MCK
19 MCMD
21 PIPKEY
22 RBLKG
23 BDR
IC301
CXD1228Q
MEMORY CONTROLLER
NTSC/PAL
IC324
D-LATCH
TC74HC374AF
NTSC:NOMT
H PAL
L NTSC
H NTSC
L PAL
IC321
IC322
IC323
ADDRESS DECODER
IC351
CXD1227Q
DIGITAL CHROMA ENCODER
SPECIAL EFFECTS G
PAL/NTSC
1:BLACK
0:WHITE
IC352
SELECT
IC353
OR
IC371
PHASE COMP.
CX23065A
Q491,492
DIFF.
IC472
D-LATCH
TC74HC374AF
IC471
INV.
TC7W04F
NTSC:0
IC45
READ TIMING
R-AFC VCO


12
13
14
15
16
17
18
19
20
IC401
IC401 CXD1171M
Y D/A CONVERTER
IC421
IC421 CXD1171M
C D/A CONVERTER
IC351
CHROMA ENCORDER
AL EFFECTS GEN
IC371
ASE COMP.
Q371
R-APC VCO
IC451
IC451 CXD1229Q
READ TIMING GEN
Q401 2SA812 BUFFER
Q421 2SA812 BUFFER
58
59
60
61
62
RUV
CHR0
CMR1
CMR2
CMR3
YHR0
YHR1
YHR2
YHR3
YHR4
YHR5
YHR6
YHR7
FSIG
GND
Y CONT
RVCC
Y D/A
GND
C CONT
RVCC
C D/A
GND
RSYNC
CH0
RH0
REVEN
RV0
CN201 28P VARI
TO DV-11 BOARD
CN102/CN202

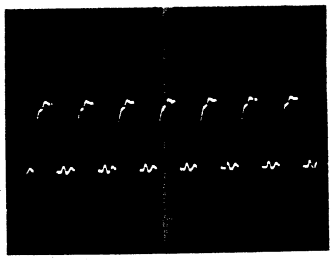
(See page 89.)

MB-61 BOARD 2/2

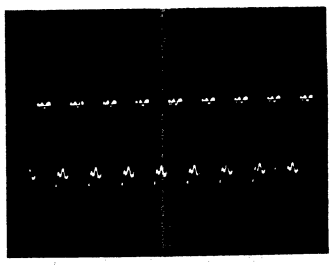
(58) IC351 (65) 0.5V/0.05μs



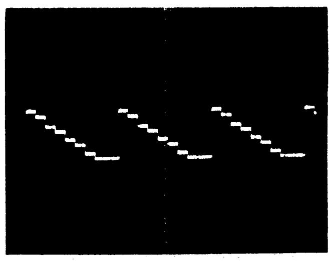
(59) IC401 (12) 2V/0.05μs



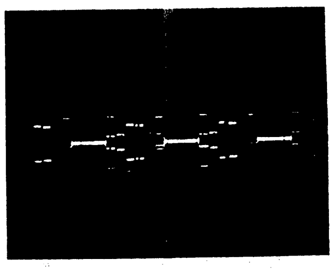
(60) IC421 (12) 2V/0.05μs



(61) Q401 Ⓔ 0.5V/20μs



(62) Q421 Ⓔ 0.5V/20μs



SOURCE SIGNAL
ANALOGUE

VIDEO SIGNAL			AUDIO SIGNAL
CHROMA	Y	Y/CHROMA	
⇨	⇨		

DIGITAL

	VIDEO SIGNAL			VIDEO CONTROL	AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA		
WRITTEN IN				➤	
READ OUT	DIG ⇨	DIG ⇨		⊳	

MB-61 (A/B LINE MEMORY) PRINTED WIRING BOARD

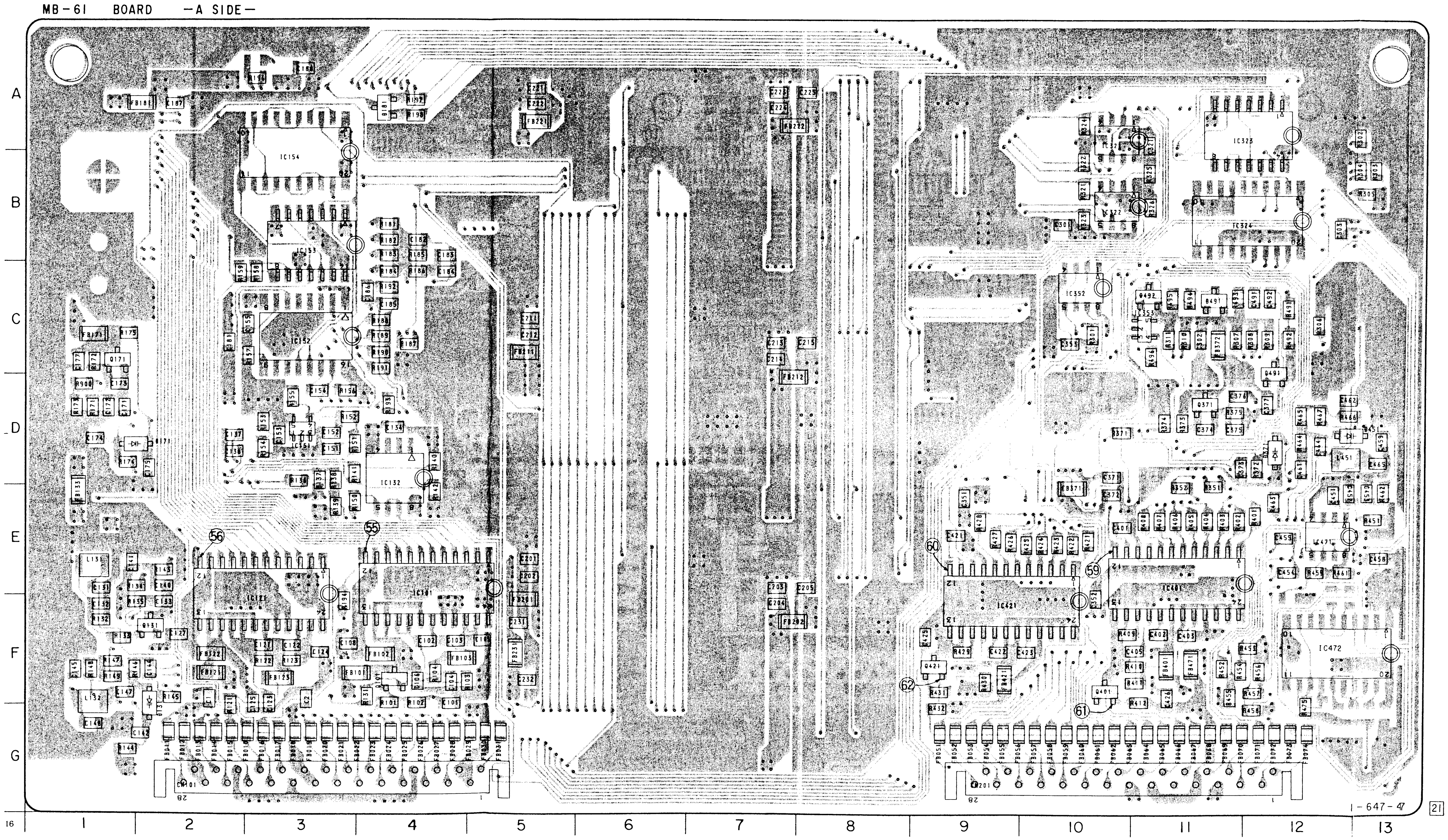
– Ref No. MB-61 BOARD : 7,000 Series –

Note: Two pieces of MB-61 board are used. They are named MB-61 (A) and MB-61 (B) board used for LINE-A and LINE-B. As the repair part, the MB-61 board is supplied that can be used for both LINE-A and LINE-B.

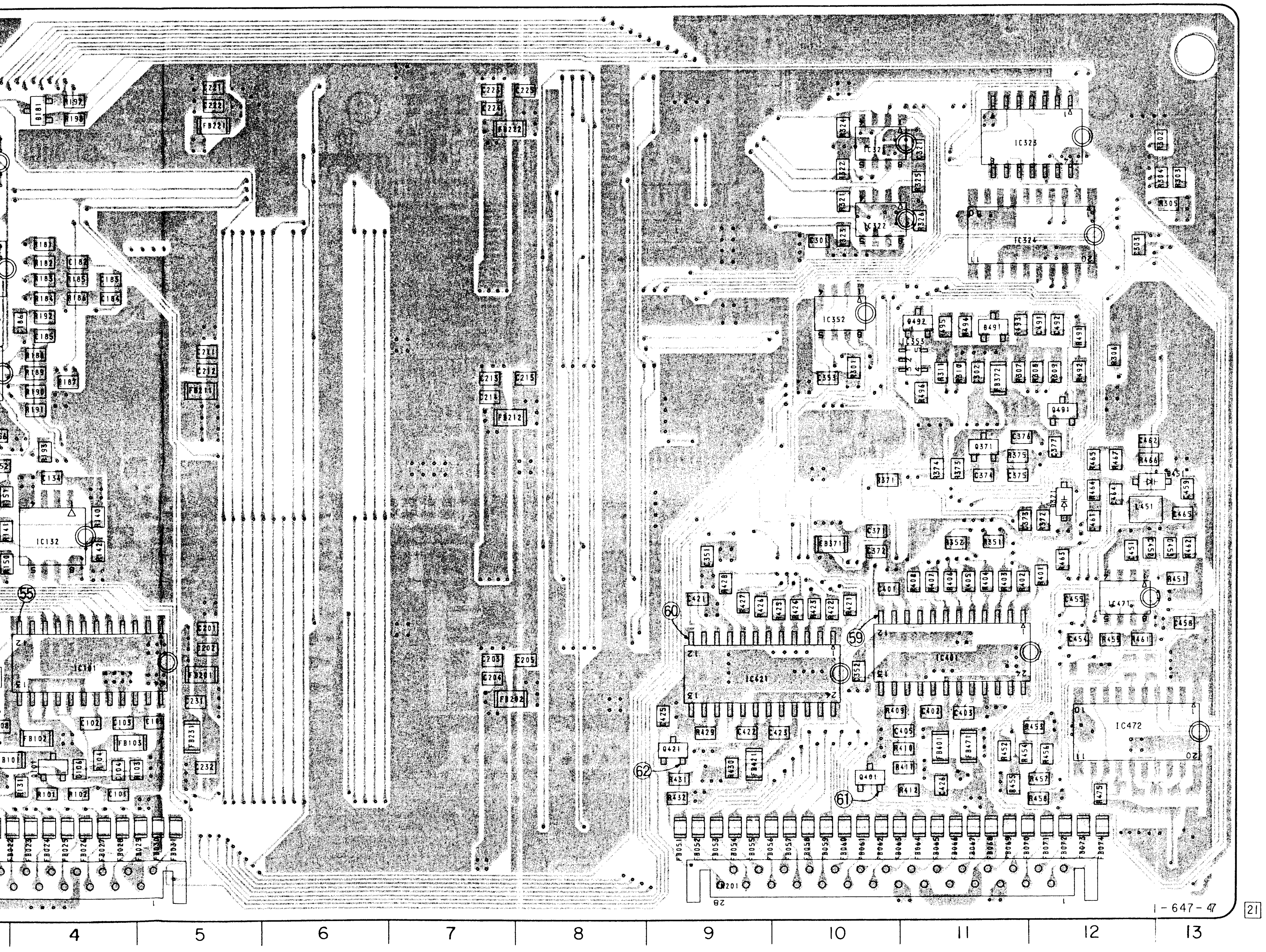
MB-61 BOARD

CN101	G-2	(A)
CN201	G-9	(A)
CV131	F-12	(B)
CV171	D-13	(B)
CV371	D-2	(B)
CV451	C-1	(B)
D131	G-2	(A)
D171	C-1	(A)
D181	A-4	(A)
D371	D-12	(A)
D451	D-12	(A)
D491	C-11	(A)
IC101	E-4	(A)
IC121	F-3	(A)
IC131	E-12	(B)
IC132	D-4	(A)
IC151	D-3	(A)
IC152	C-3	(A)
IC153	B-3	(A)
IC154	B-3	(A)
IC181	B-11	(B)
IC201	F-8	(B)
IC202	F-6	(B)
IC211	D-8	(B)
IC212	D-6	(B)
IC221	B-8	(B)
IC222	B-6	(B)
IC301	B-2	(B)
IC321	A-10	(A)
IC322	B-10	(A)
IC323	A-11	(A)
IC324	B-11	(A)
IC351	E-3	(A)
IC352	C-10	(A)
IC353	C-11	(A)
IC371	D-4	(B)
IC401	E-11	(A)
IC421	F-9	(A)
IC451	E-1	(B)
IC472	F-12	(A)
Q101	F-4	(A)
Q131	F-2	(A)
Q171	C-1	(A)
Q371	D-11	(A)
Q401	F-10	(A)
Q421	F-9	(A)
Q491	C-12	(A)
Q492	C-11	(A)

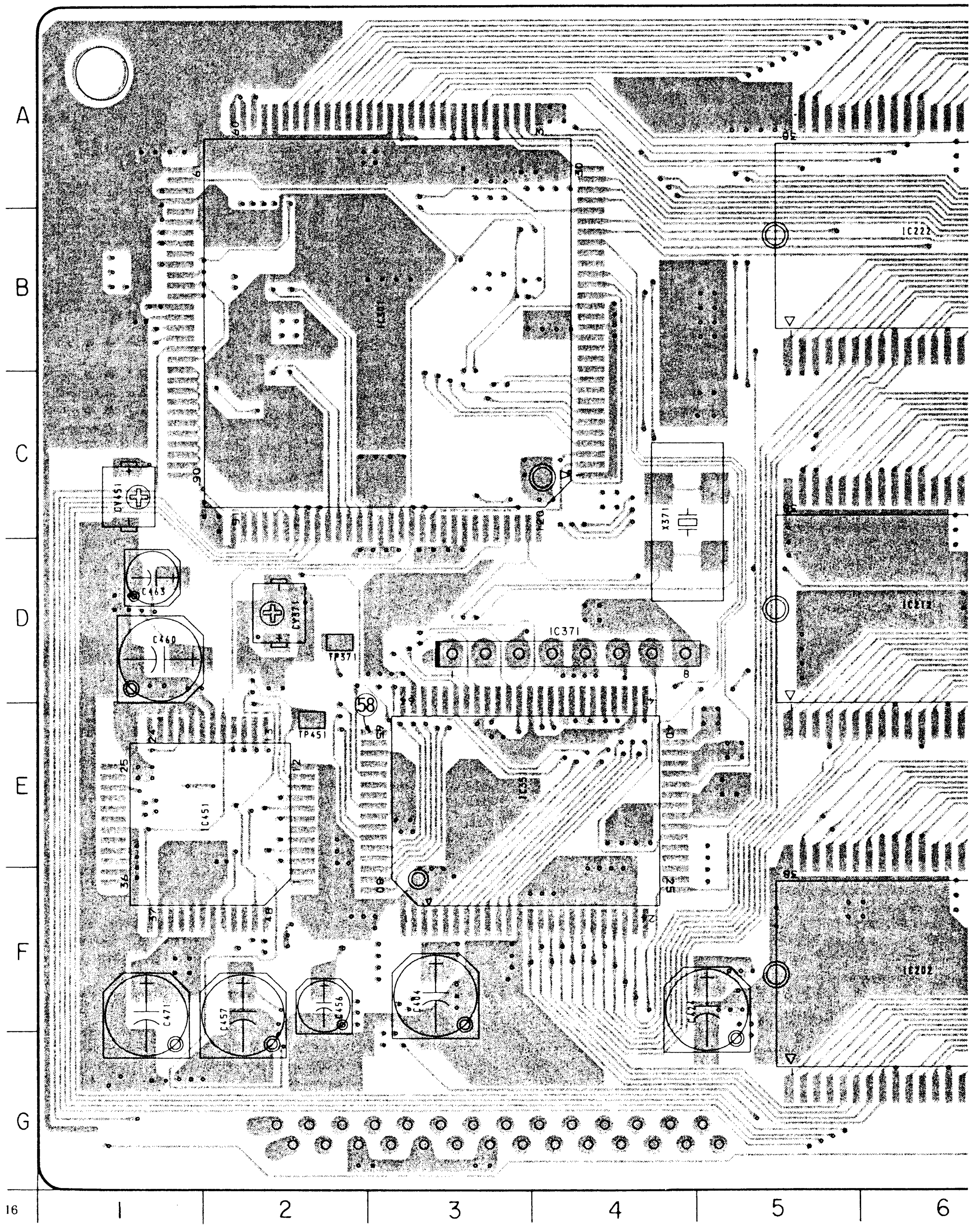
(A) and (B) after location No show the side of printed wiring board.


MB-61 BOARD -A SIDE-
A
B
C
D
E
F
G
16
1
2
3
4
5
6
7
8
9
10
11
12
13
IC154
IC153
IC152
IC132
IC121
IC101
IC421
IC401
IC352
IC323
IC324
IC472
CN101
CN201
55
56
59
60
61
62
1-647-47
21

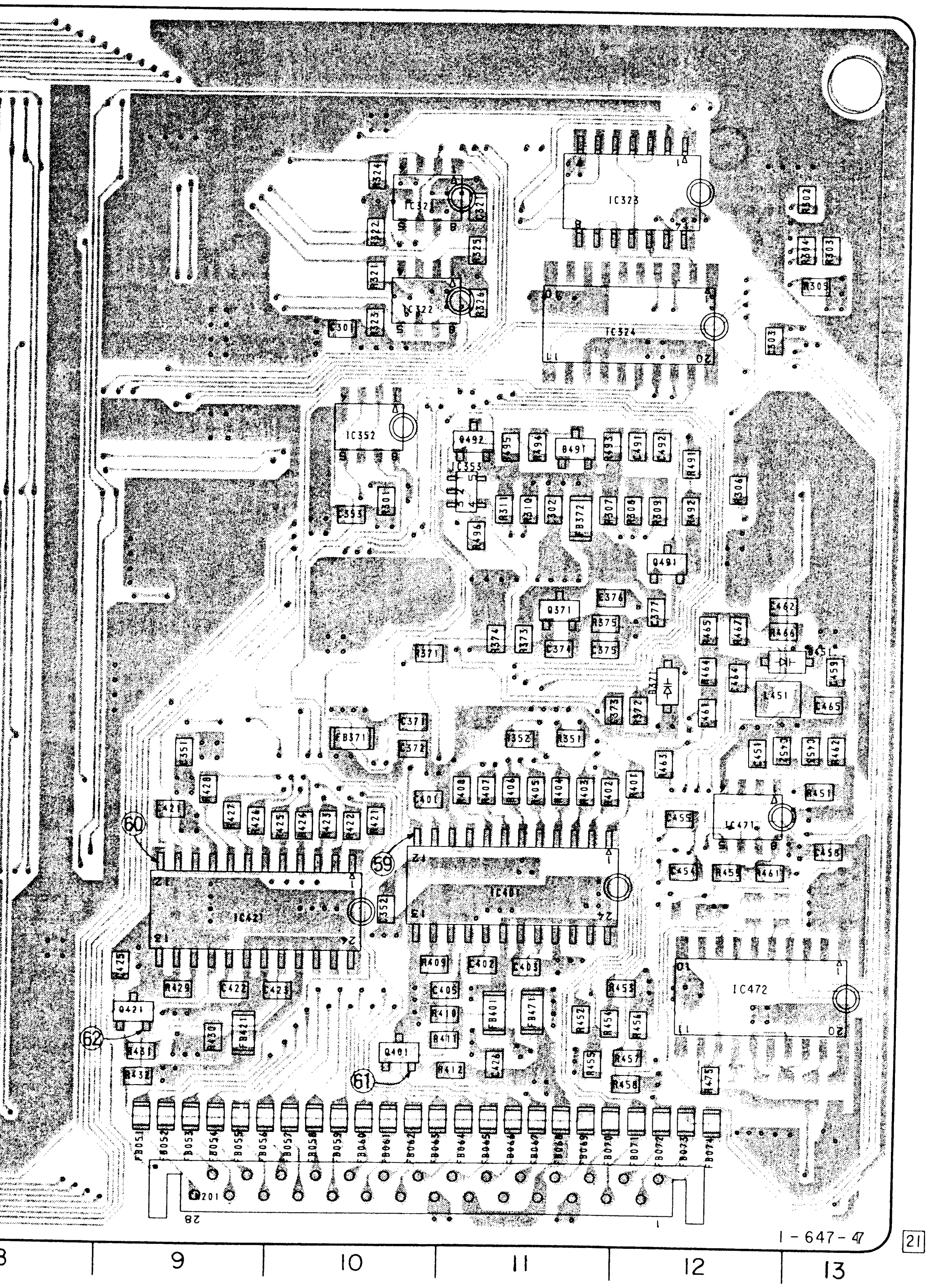
ote: Two pieces of MB-61 board are used. They are named MB-61 (A) and MB-61 (B) board used for LINE-A and LINE-B. As the repair part, the MB-61 board is supplied that can be used for both LINE-A and LINE-B.


IC132
IC181
IC323
IC324
IC352
IC401
IC421
IC472
55
58
59
60
61
62
1-647-47
21
4
5
6
7
8
9
10
11
12
13

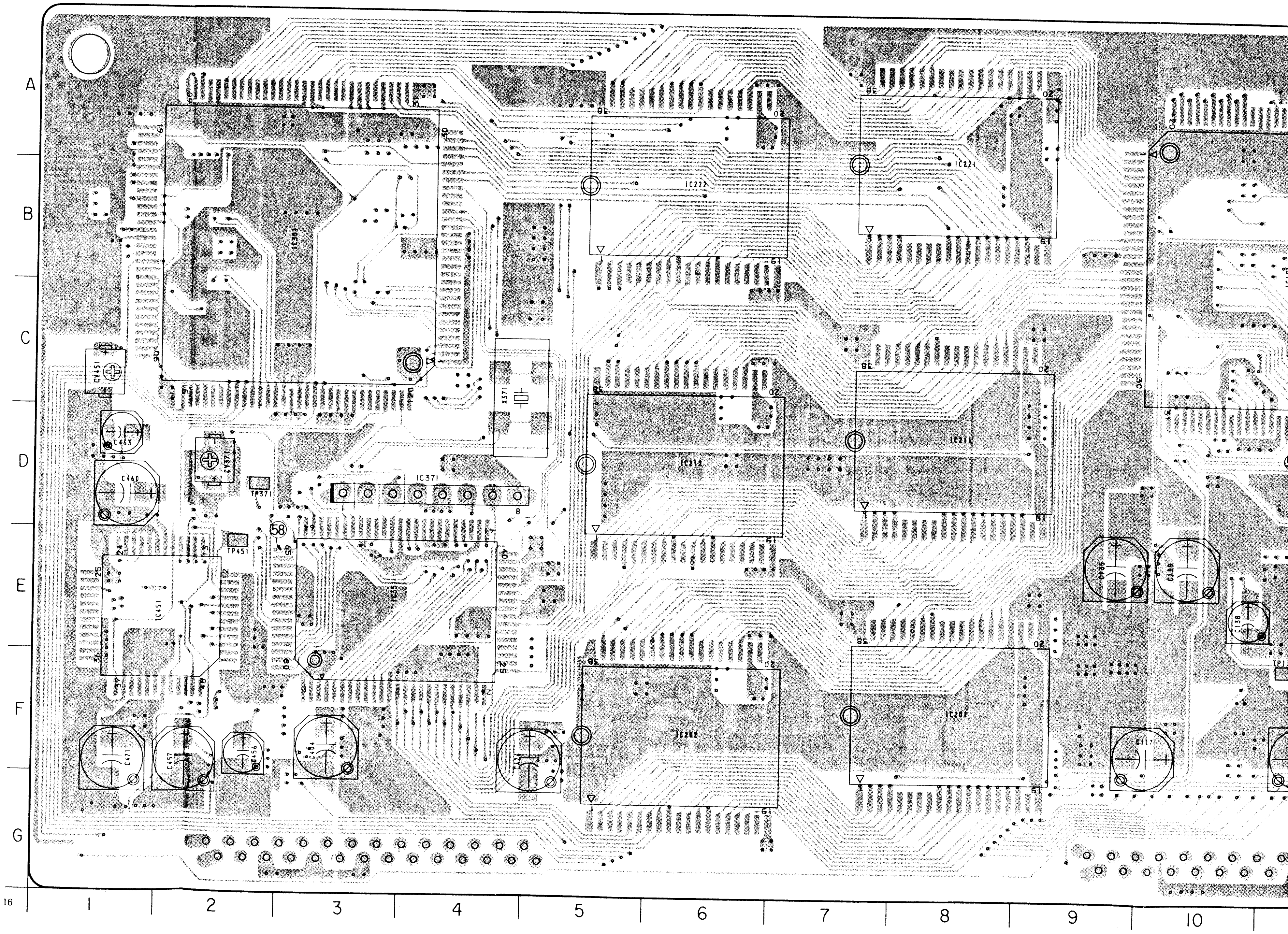
MB-61 BOARD -B SIDE-


A
B
C
D
E
F
G
IC371
IC451
X371
C440
TP371
TP451
58
16
1
2
3
4
5
6

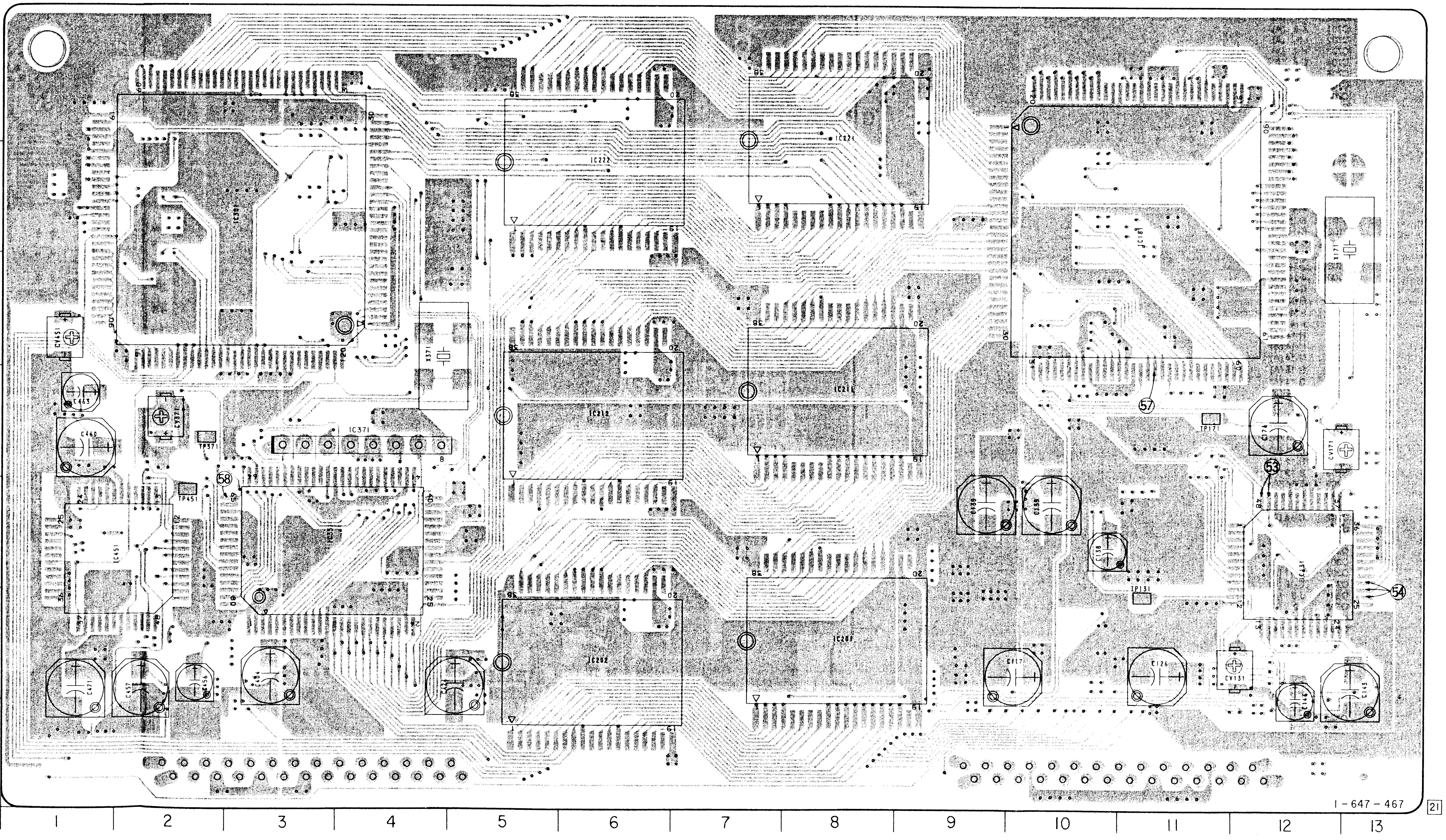
l (B) board used for LINE-A and LINE-B. As the
LINE-B.


IC323
IC324
IC352
IC421
IC401
IC471
IC472
58
59
60
61
62
1-647-41
21
8
9
10
11
12
13

MB-61 BOARD -B SIDE-


A
B
C
D
E
F
G
IC301
IC222
IC221
IC212
IC211
IC202
IC201
IC371
IC451
IC455
X371
TP371
TP451
C440
C451
C457
C471
58
16
1
2
3
4
5
6
7
8
9
10

MB-61 BOARD -B SIDE-


IC381
IC222
IC221
IC181
IC212
IC211
IC371
IC201
IC202
IC451
IC131
X371
X171
CV451
CV371
CV171
CV131
C463
C440
C471
C457
C117
C126
C174
C143
TP371
TP451
TP171
TP131
57
53
54
58
1-647-467
21
1
2
3
4
5
6
7
8
9
10
11
12
13

DV-11 (DIGITAL VIDEO/MAIN CONTROL) PRINTED WIRING BOARD

– Ref No. DV-11 BOARD : 8,000 Series –

DV-11 BOARD (2/2)

Q570	E-3	(A)
Q571	D-4	(A)
Q572	E-3	(A)
Q601	D-3	(A)
Q602	D-3	(A)
Q603	D-4	(A)
Q604	C-4	(A)
Q605	C-4	(A)
Q606	E-3	(A)
Q681	F-2	(A)
Q682	F-2	(A)
Q701	I-6	(A)
Q702	I-7	(A)
Q703	B-5	(A)
Q704	C-5	(A)
Q705	I-6	(A)
Q706	I-6	(A)
Q707	J-6	(A)
Q708	J-6	(A)
Q921	J-3	(A)
Q922	J-3	(A)
Q923	J-4	(A)
Q924	K-4	(A)
Q941	H-3	(A)
Q942	H-3	(A)
Q943	H-4	(A)
Q944	H-4	(A)
RY681	E-15	(B)

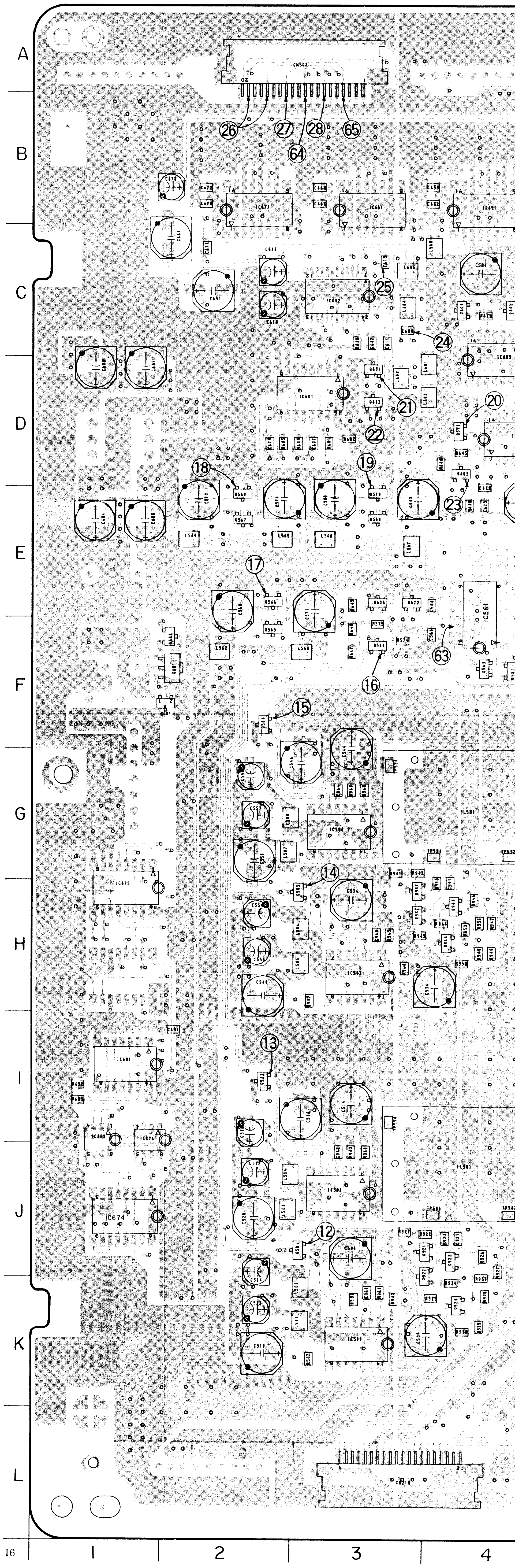
(A) and (B) after location No. show the side of printed wiring board.

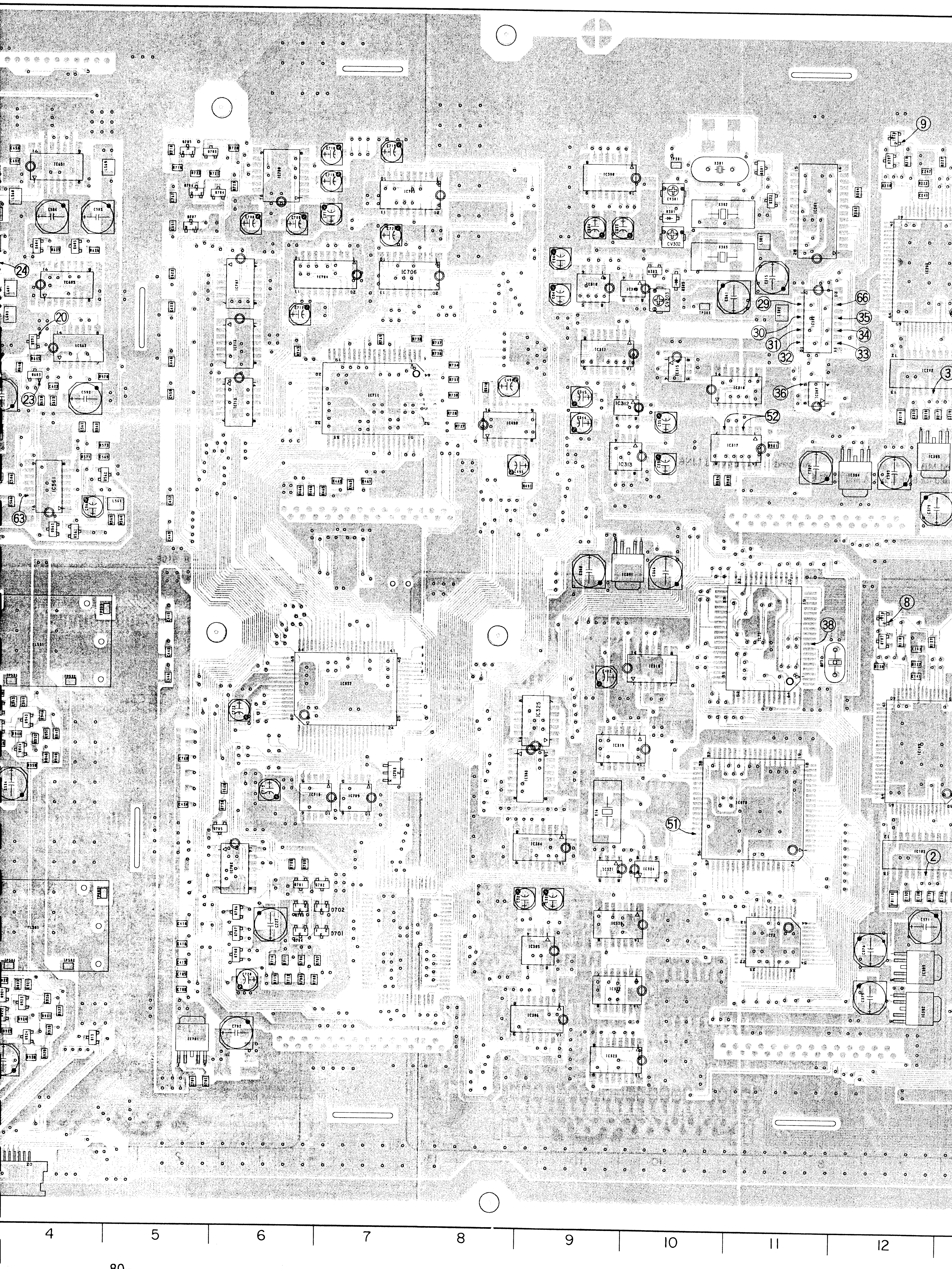
DV-11 BOARD (1/2)

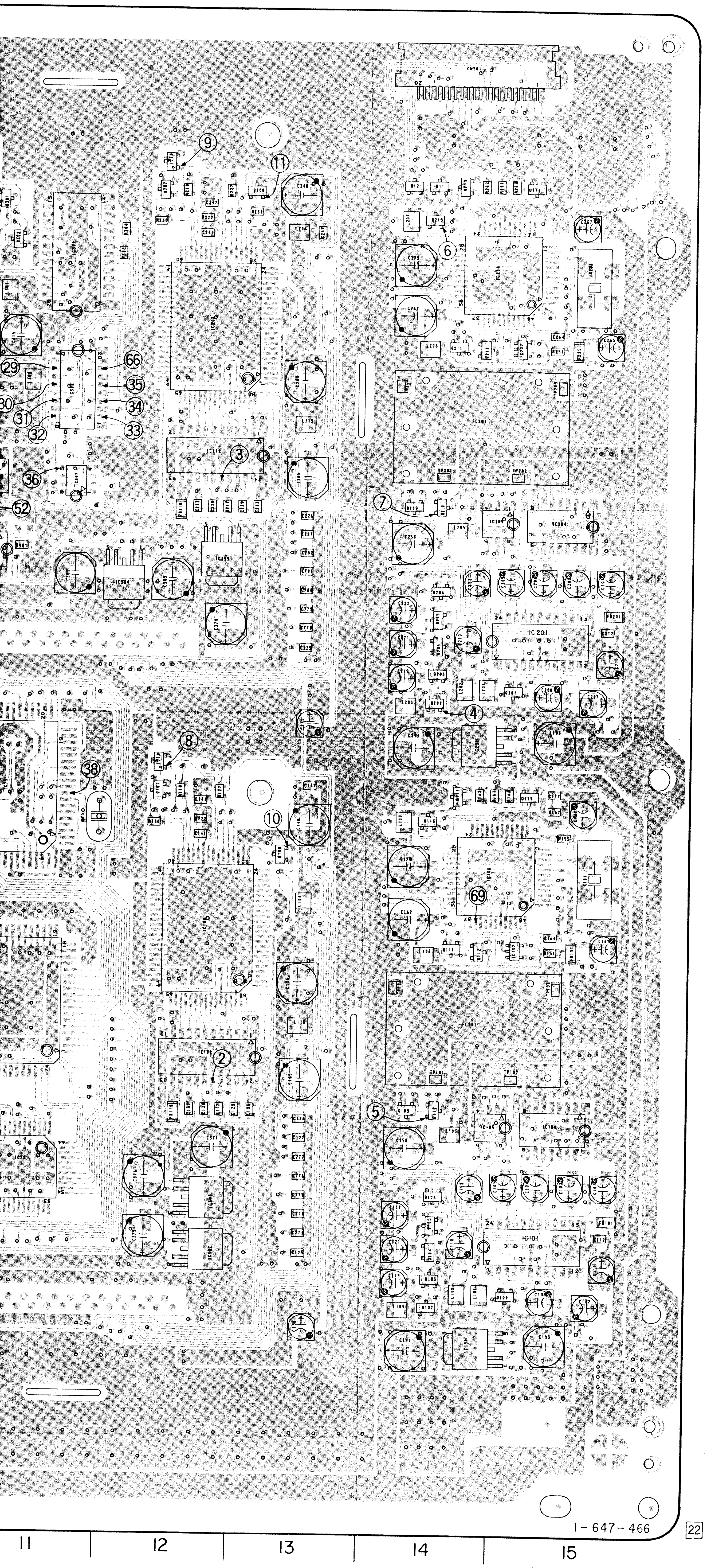
CN031	A-15	(B)
CN101	J-5	(B)
CN102	J-9	(B)
CN110	A-12	(B)
CN201	E-5	(B)
CN202	E-10	(B)
CN210	L-3	(A)
CN301	L-15	(B)
CN501	A-14	(A)
CN502	A-3	(A)
CV301	C-10	(A)
CV302	C-10	(A)
CV303	D-10	(A)
D101	G-12	(A)
D201	B-12	(A)
D301	C-10	(A)
D303	C-10	(A)
D681	F-2	(A)
D701	J-7	(A)
D702	I-7	(A)
D703	I-6	(A)
D704	J-6	(A)
D705	B-5	(A)
D706	C-5	(A)
D707	C-5	(A)
IC304	I-9	(A)
IC308	B-9	(A)
IC311	D-9	(A)
IC490	E-8	(A)
IC037	G-7	(A)
IC072	J-11	(A)
IC075	G-11	(A)
IC078	H-11	(A)
IC101	J-15	(A)
IC102	I-12	(A)
IC103	H-12	(A)
IC104	I-15	(A)
IC105	I-14	(A)
IC106	G-14	(A)
IC107	H-15	(A)
IC191	K-14	(A)
IC201	F-15	(A)
IC202	D-12	(A)
IC203	C-12	(A)
IC204	E-15	(A)
IC205	E-14	(A)
IC206	C-14	(A)
IC207	C-15	(A)
IC291	F-14	(A)
IC301	C-11	(A)
IC302	D-11	(A)
IC303	H-9	(A)
IC305	J-9	(A)
IC306	J-9	(A)
IC307	D-11	(A)
IC309	C-9	(A)
IC310	C-9	(A)
IC312	E-9	(A)
IC313	E-9	(A)
IC314	D-6	(B)
IC315	D-10	(A)
IC316	D-10	(A)
IC317	E-10	(A)
IC318	G-10	(A)
IC319	H-9	(A)
IC320	J-9	(A)
IC321	I-9	(A)
IC322	J-9	(A)
IC323	K-9	(A)
IC324	I-10	(A)
IC325	H-9	(A)
IC391	F-9	(A)
IC392	J-12	(A)
IC393	J-12	(A)
IC394	E-12	(A)
IC395	E-12	(A)
IC501	K-3	(A)
IC502	J-3	(A)
IC503	H-3	(A)
IC504	G-3	(A)
IC561	F-4	(A)
IC562	D-4	(A)
IC601	D-3	(A)
IC602	C-3	(A)
IC603	C-4	(A)
IC651	B-4	(A)
IC661	B-3	(A)
IC671	B-2	(A)
IC674	J-1	(A)
IC675	H-1	(A)
IC676	I-1	(A)
IC681	D-15	(B)
IC682	D-15	(B)
IC691	I-1	(A)
IC692	I-1	(A)
IC701	K-5	(A)
IC702	I-6	(A)
IC703	H-7	(A)
IC704	C-6	(A)
IC705	C-7	(A)
IC706	C-7	(A)
IC707	C-6	(A)
IC708	B-6	(A)
IC709	H-7	(A)
IC710	H-6	(A)
IC711	E-7	(A)
IC712	E-6	(A)
IC713	D-6	(A)
Q011	B-14	(A)
Q012	B-14	(A)
Q013	K-4	(A)
Q101	K-15	(A)
Q102	K-14	(A)
Q103	J-14	(A)
Q104	J-14	(A)
Q105	J-14	(A)
Q106	J-14	(A)
Q107	G-12	(A)
Q108	G-13	(A)
Q109	I-14	(A)
Q110	I-14	(A)
Q111	H-14	(A)
Q112	H-14	(A)
Q113	G-14	(A)
Q114	G-15	(A)
Q115	G-14	(A)
Q201	F-15	(A)
Q202	F-14	(A)
Q203	F-14	(A)
Q204	F-14	(A)
Q205	E-14	(A)
Q206	E-14	(A)
Q207	B-12	(A)
Q208	B-13	(A)
Q209	E-14	(A)
Q210	E-14	(A)
Q211	C-14	(A)
Q212	C-14	(A)
Q213	B-14	(A)
Q214	B-15	(A)
Q215	B-14	(A)
Q301	B-11	(A)
Q302	C-11	(A)
Q303	C-10	(A)
Q501	J-3	(A)
Q502	I-2	(A)
Q503	H-3	(A)
Q504	F-2	(A)
Q561	F-4	(A)
Q562	E-4	(A)
Q563	F-4	(A)
Q564	F-3	(A)
Q565	F-2	(A)
Q566	E-2	(A)
Q567	E-2	(A)
Q568	E-2	(A)
Q569	E-3	(A)

(A) and (B) after location No. show the side of printed wiring board.

DV-11 BOARD —A SIDE—

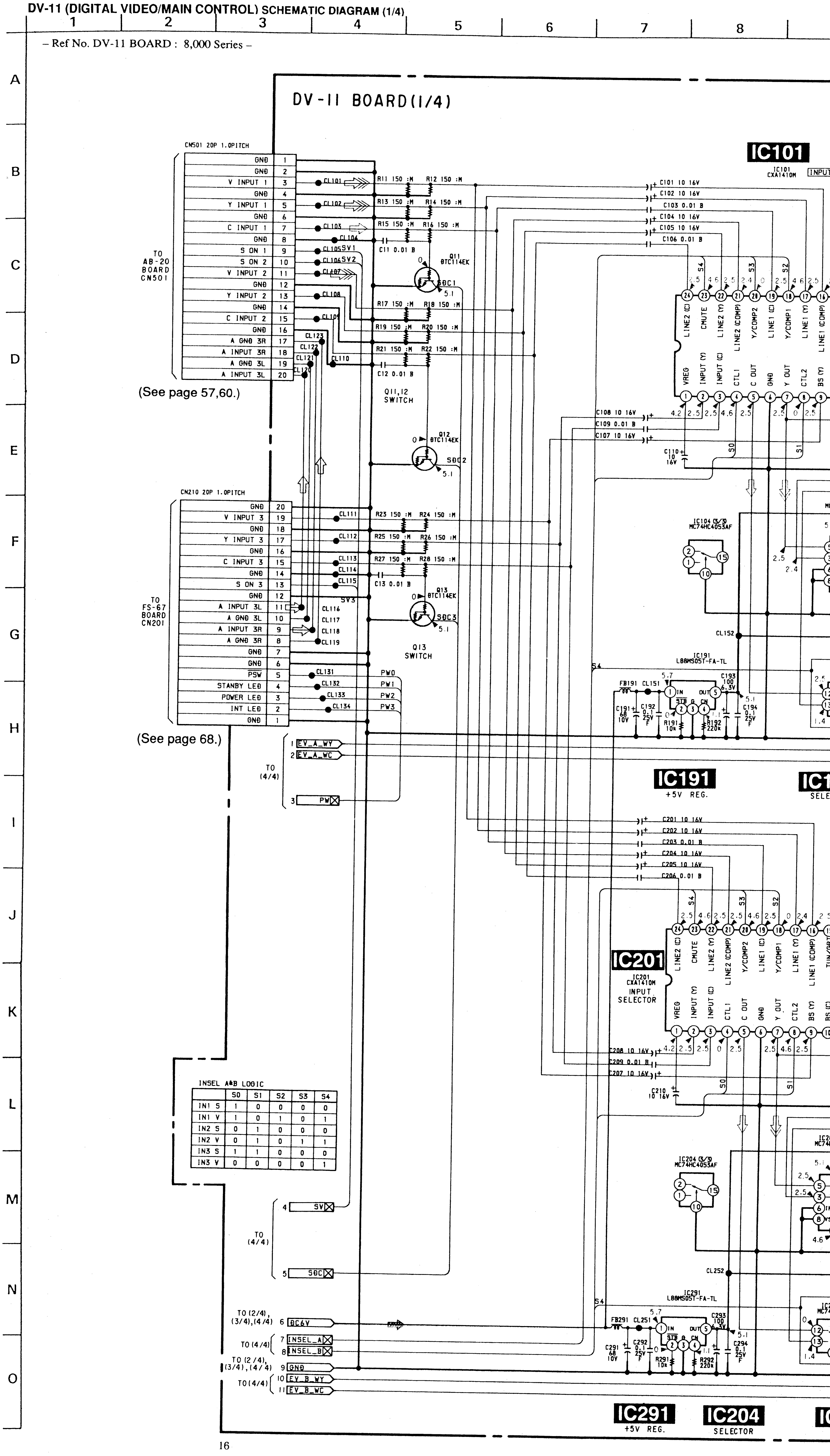



IC706
IC711
IC657
IC325
D702
D701
CV302
CV303
X302
X303
IC305
IC306
IC304
IC312
IC313
IC317
IC309
IC319
IC321
IC325
IC701
C702
9
24
20
23
63
29
30
31
32
66
35
34
33
36
52
38
51
8
2
4
5
6
7
8
9
10
11
12


CN501
IC201
FL201
IC101
FL101
1-647-466

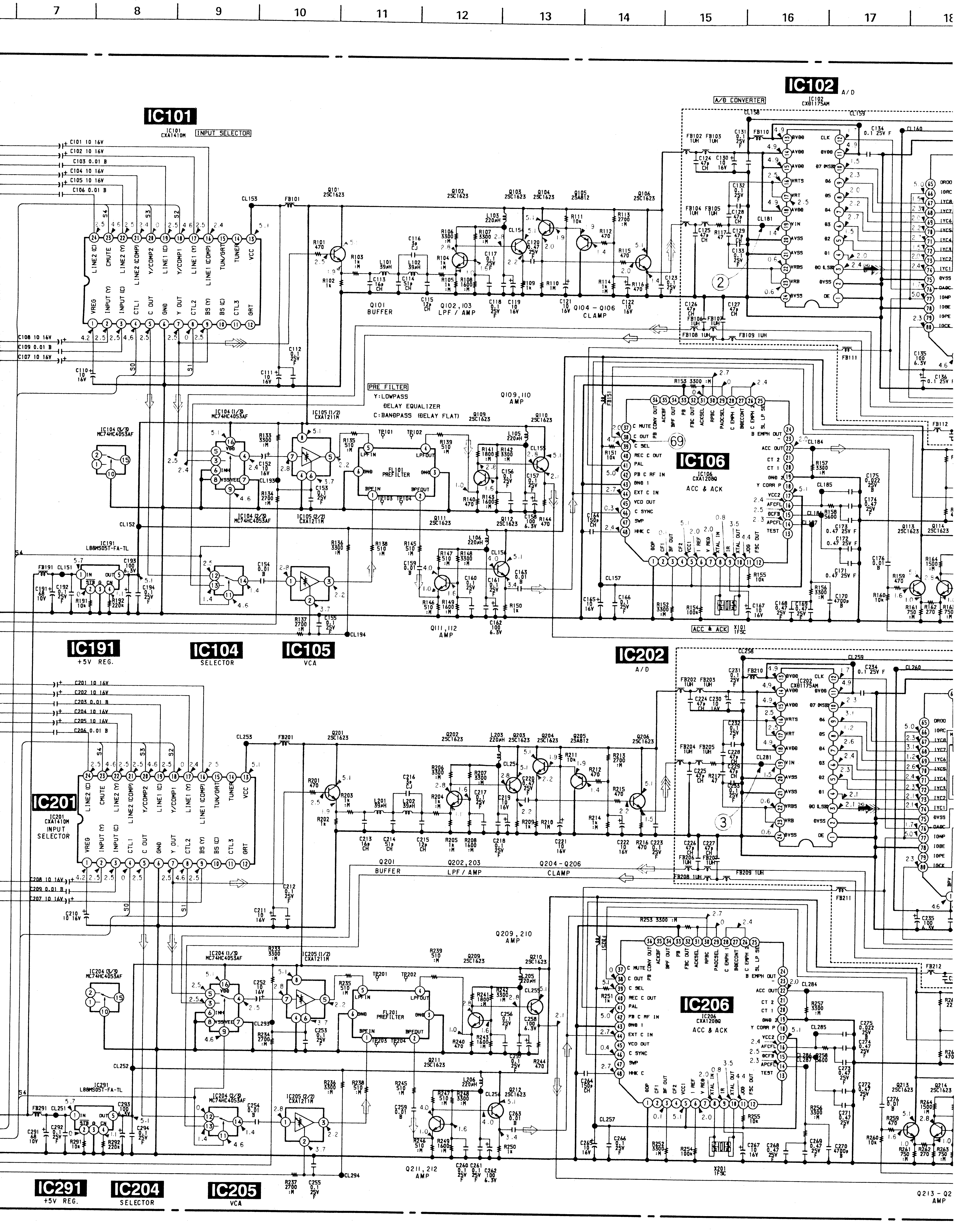
DV-11 (DIGITAL VIDEO/MAIN CONTROL) SCHEMATIC DIAGRAM (1/4)

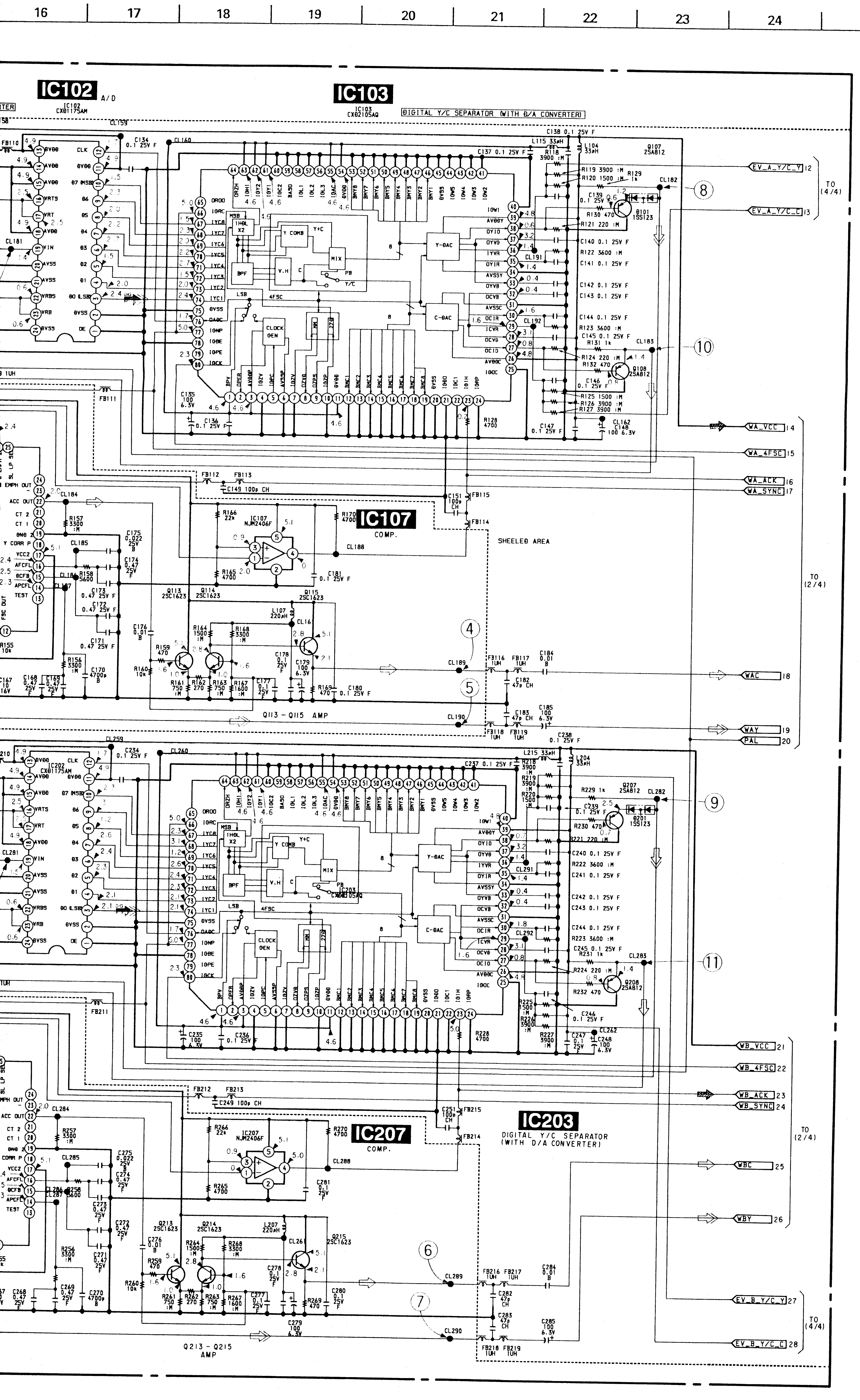
– Ref No. DV-11 BOARD : 8,000 Series –


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
DV-11 BOARD(1/4)
CN501 20P 1.0PITCH
GND
V INPUT 1
Y INPUT 1
C INPUT 1
S ON 1
S ON 2
V INPUT 2
Y INPUT 2
C INPUT 2
A GND 3R
A INPUT 3R
A GND 3L
A INPUT 3L
TO AB-20 BOARD CN501
(See page 57,60.)
CN210 20P 1.0PITCH
V INPUT 3
Y INPUT 3
C INPUT 3
S ON 3
PSW
STANBY LED
POWER LED
INT LED
TO FS-67 BOARD CN201
(See page 68.)
Q11 8TC114EK
Q12 8TC114EK
Q13 8TC114EK
Q11,12 SWITCH
Q13 SWITCH
SOC1
SOC2
SOC3
SV1
SV2
SV3
PW0
PW1
PW2
PW3
R11 150 :M
R12 150 :M
R13 150 :M
R14 150 :M
R15 150 :M
R16 150 :M
R17 150 :M
R18 150 :M
R19 150 :M
R20 150 :M
R21 150 :M
R22 150 :M
R23 150 :M
R24 150 :M
R25 150 :M
R26 150 :M
R27 150 :M
R28 150 :M
C11 0.01 B
C12 0.01 B
C13 0.01 B
1 EV_A_WY
2 EV_A_WC
3 PW
TO (4/4)
4 SV
5 SOC
6 DC6V
7 INSEL_A
8 INSEL_B
9 GND
10 EV_B_WY
11 EV_B_WC
TO (2/4),(3/4),(4/4)
IC101
IC101 CXA1410M
C101 10 16V
C102 10 16V
C103 0.01 B
C104 10 16V
C105 10 16V
C106 0.01 B
C107 10 16V
C108 10 16V
C109 0.01 B
C110 10 16V
LINE2 (C)
CMUTE
LINE2 (Y)
LINE2 (COMP)
Y/COMP2
LINE1 (C)
Y/COMP1
LINE1 (Y)
LINE1 (COMP)
VREG
INPUT (Y)
INPUT (C)
CTL1
C OUT
GND
Y OUT
CTL2
BS (Y)
IC104 (3/3) MC74HC4053AF
IC191 L88MS05T-FA-TL
IC191 +5V REG.
FB191
CL151
CL152
C191 68 10V
C192 0.1 25V F
C193 100 6.3V
C194 0.1 25V F
R191 10k
R192 220k
IC201
IC201 CXA1410M INPUT SELECTOR
C201 10 16V
C202 10 16V
C203 0.01 B
C204 10 16V
C205 10 16V
C206 0.01 B
C207 10 16V
C208 10 16V
C209 0.01 B
C210 10 16V
IC204 (3/3) MC74HC4053AF
IC291 L88MS05T-FA-TL
IC291 +5V REG.
IC204 SELECTOR
FB291
CL251
CL252
C291 68 10V
C292 0.1 25V F
C293 100 6.3V
C294 0.1 25V F
R291 10k
R292 220k
S0
S1
S2
S3
S4

INSEL A&B LOGIC

	S0	S1	S2	S3	S4
IN1 S	1	0	0	0	0
IN1 V	1	0	1	0	1
IN2 S	0	1	0	0	0
IN2 V	0	1	0	1	1
IN3 S	1	1	0	0	0
IN3 V	0	0	0	0	1


7
8
9
10
11
12
13
14
15
16
17
IC101
IC101 CXA1410M
INPUT SELECTOR
IC102 A/D
A/D CONVERTER
IC102 CXD1175AM
IC106
IC106 CXA1208Q
ACC & ACK
IC191
+5V REG.
IC104
SELECTOR
IC105
VCA
IC202
A/D
IC202 CXD1175AM
IC201
IC201 CXA1410M
INPUT SELECTOR
IC206
IC206 CXA1208Q
ACC & ACK
IC291
+5V REG.
IC204
SELECTOR
IC205
VCA
PRE FILTER
Y:LOWPASS
DELAY EQUALIZER
C:BANDPASS (DELAY FLAT)
FL101 PREFILTER
FL201 PREFILTER
Q101 BUFFER
Q102,103 LPF / AMP
Q104 - Q106 CLAMP
Q109,110 AMP
Q111,112 AMP
Q201 BUFFER
Q202,203 LPF / AMP
Q204 - Q206 CLAMP
Q209,210 AMP
Q211,212 AMP
Q213 - Q2
AMP
IC104 (1/3) MC74HC4053AF
IC104 (3/3) MC74HC4053AF
IC104 (2/3) MC74HC4053AF
IC105 (1/2) CXA1211M
IC105 (2/2) CXA1211M
IC191 L88MS05T-FA-TL
IC204 (1/3) MC74HC4053AF
IC204 (3/3) MC74HC4053AF
IC204 (2/3) MC74HC4053AF
IC205 (1/2) CXA1211M
IC291 L88MS05T-FA-TL
ACC & ACK
X101 1FSC
X201 1FSC
69
2
3

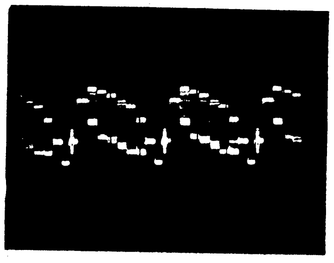

16
17
18
19
20
21
22
23
24
25
26
27
IC102 A/D
IC102 CXD1175AM
IC103
IC103 CXD2105AQ
DIGITAL Y/C SEPARATOR (WITH D/A CONVERTER)
Y COMB
Y/C
MIX
BPF
V.H
PB
Y-DAC
C-DAC
CLOCK GEN
IHDL X2
MSB
LSB
4FSC
EV_A_Y/C_Y 12
EV_A_Y/C_C 13
TO (4/4)
WA_VCC 14
WA_4FSC 15
WA_ACK 16
WA_SYNC 17
TO (2/4)
IC107 COMP.
IC107 NJM2406F
SHEELED AREA
Q113 - Q115 AMP
WAC 18
WAY 19
PAL 20
IC202 CXD1175AM
IC203 CXD2105AQ
WB_VCC 21
WB_4FSC 22
WB_ACK 23
WB_SYNC 24
IC203 DIGITAL Y/C SEPARATOR (WITH D/A CONVERTER)
IC207 COMP.
IC207 NJM2406F
TO (2/4)
WBC 25
WBY 26
Q213 - Q215 AMP
EV_B_Y/C_Y 27
EV_B_Y/C_C 28
TO (4/4)
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪

SOURCE SIGNAL
ANALOGUE

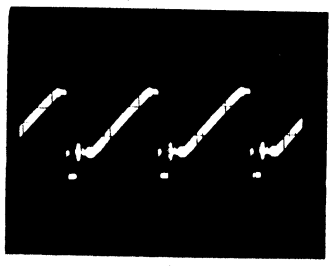
VIDEO SIGNAL		
CHROMA	Y	Y/
⇨	⇨	

DV-11 BOARD 1/4

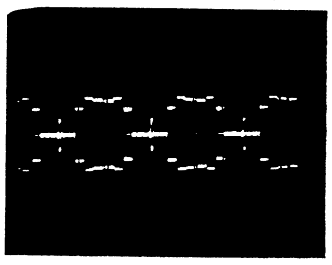
② IC102 ⑲ 0.5V/20µs



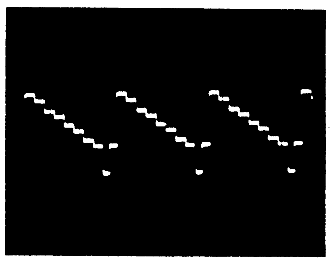
③ IC202 ⑲ 0.5V/20µs



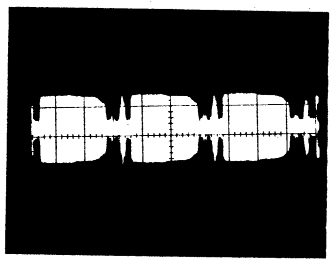
④ Q115 Ⓔ 0.5V/20µs



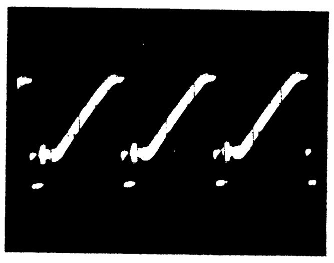
⑤ Q110 Ⓔ 0.5V/20µs



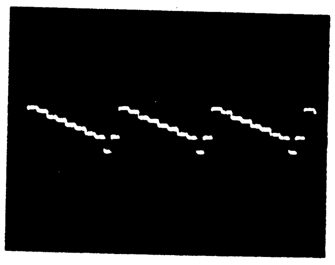
⑥ Q215 Ⓔ 0.2V/20µs



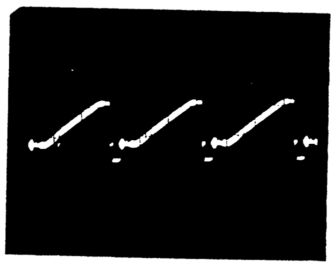
⑦ Q210 Ⓔ 0.5V/20µs



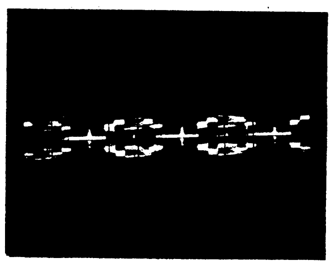
⑧ D101 Ⓐ 0.5V/20µs



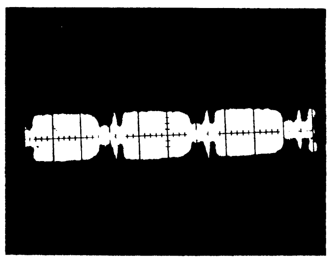
⑨ D201 Ⓐ 0.5V/20µs



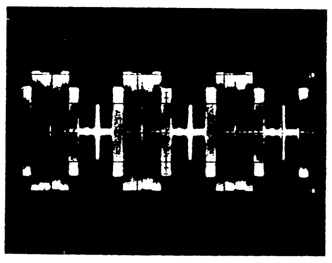
⑩ Q108 Ⓔ 0.5V/20µs



⑪ Q208 Ⓔ 50mV/20µs



(69) IC106 ㊳ 0.1V/20µs



SOURCE SIGNAL
ANALOGUE

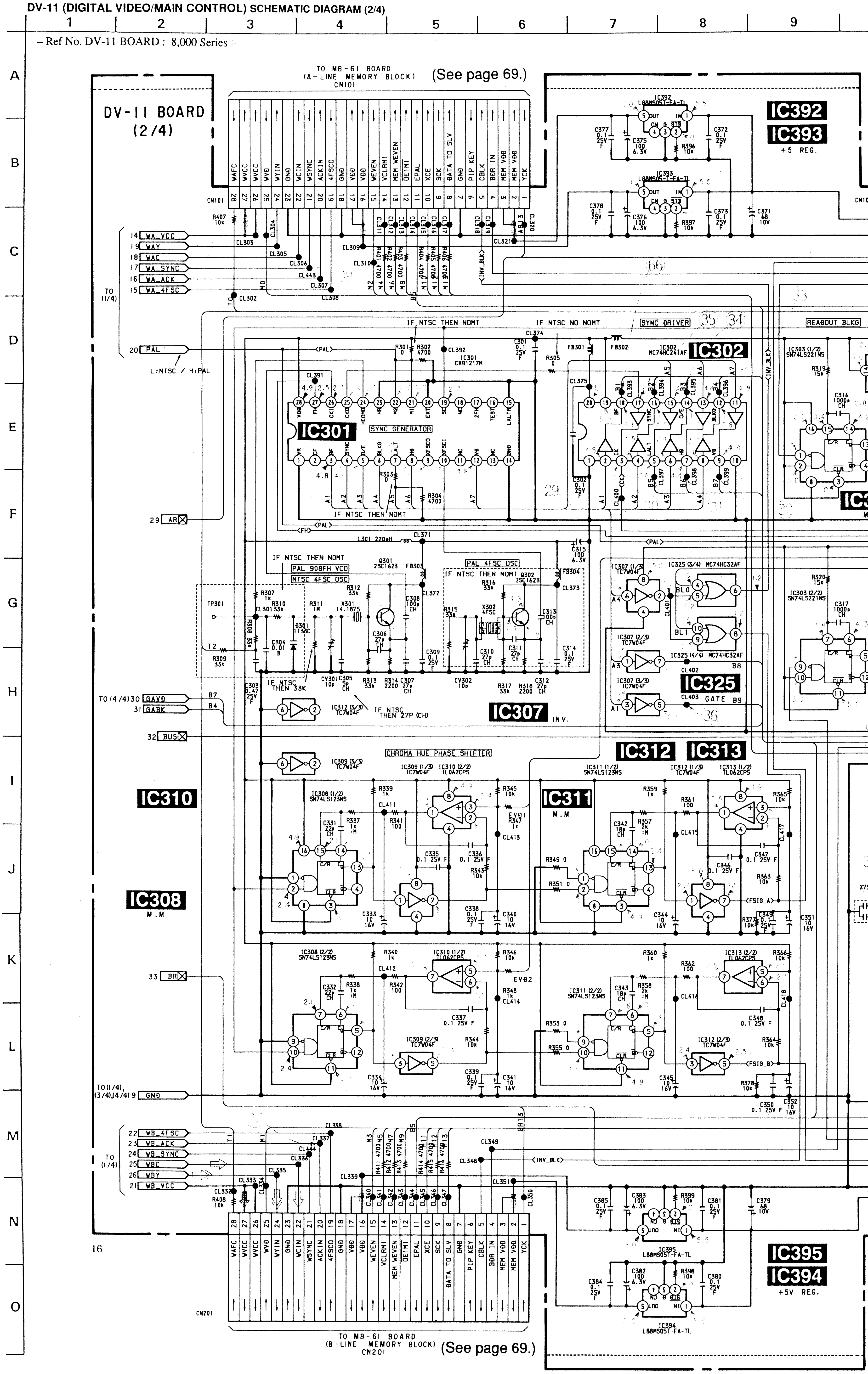
VIDEO SIGNAL			AUDIO SIGNAL
CHROMA	Y	Y/CHROMA	
⇨	⇨	⇛	⇨

DIGITAL

	VIDEO SIGNAL			AUDIO SIGNAL
	CHROMA	Y	Y/CHROMA	
WRITTEN IN			DIG ⇛	
READ OUT				

DV-11 (DIGITAL VIDEO/MAIN CONTROL) SCHEMATIC DIAGRAM (2/4)

– Ref No. DV-11 BOARD : 8,000 Series –


1
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6
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8
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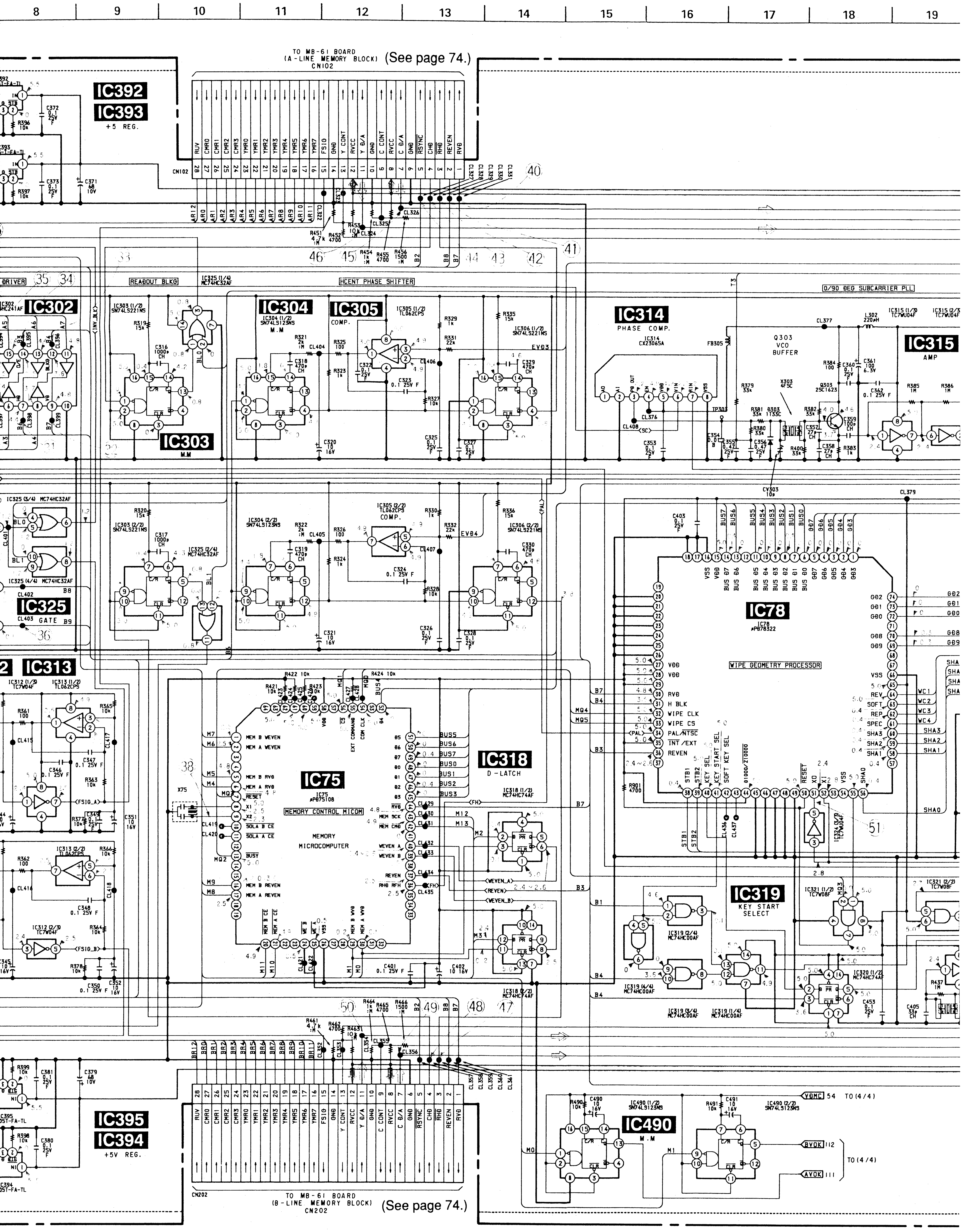
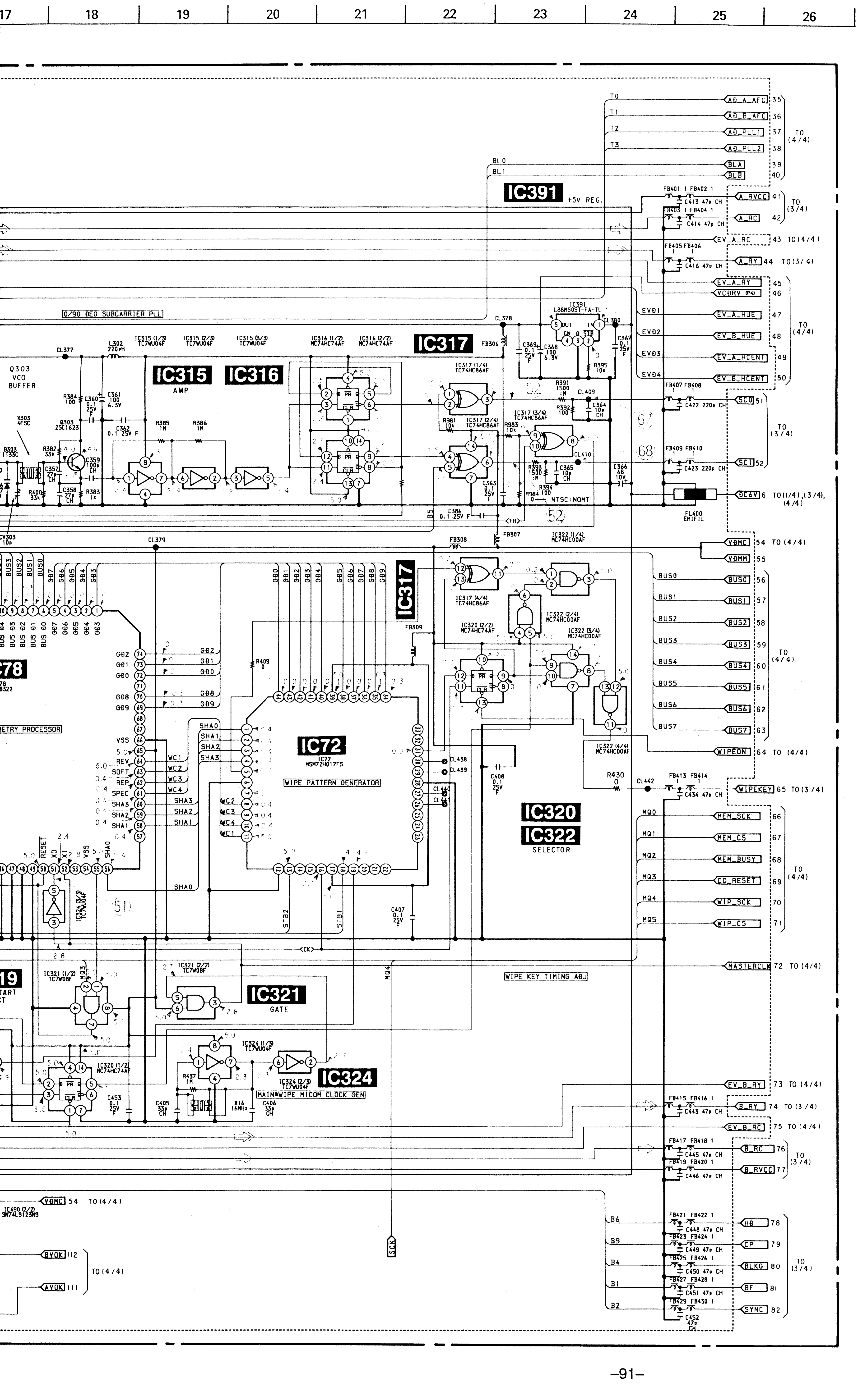
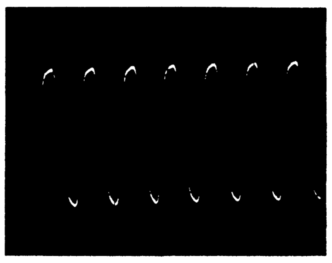
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
DV-11 BOARD (2/4)
TO MB-61 BOARD (A-LINE MEMORY BLOCK) CN101
(See page 69.)
CN101
WAFC
WVCC
WVØ
WYIN
GND
WCIN
WSYNC
ACKIN
4FSCO
GND
VDD
VDD
WEVEN
VCLRM1
MEM WEVEN
OEIMI
EPAL
XCE
SCK
DATA TO SLV
GND
PIP KEY
CBLK
BBR IN
MEM VDD
MEM VDD
YCK
TO (1/4)
14 WA_VCC
19 WAY
18 WAC
17 WA_SYNC
16 WA_ACK
15 WA_4FSC
20 PAL
L:NTSC / H:PAL
29 AR
TO (4/4) 30 GAVD
31 GABK
32 BUS
33 BR
TO (1/4), (3/4),(4/4) 9 GND
22 WB_4FSC
23 WB_ACK
24 WB_SYNC
25 WBC
26 WBY
21 WB_VCC
IC392
IC393
+5 REG.
IC392 L88MS05T-FA-TL
IC393 L88MS05T-FA-TL
IF NTSC THEN NOMT
IF NTSC NO NOMT
SYNC DRIVER
READOUT BLKG
IC301
SYNC GENERATOR
IC301 CXD1217M
IC302
IC302 MC74HC241AF
IC303 (1/2) SN74LS221NS
IC303 (2/2) SN74LS221NS
PAL 908FH VCO
NTSC 4FSC OSC
PAL 4FSC OSC
Q301 2SC1623
Q302 2SC1623
X301 14.1875
X302 4FSC
TP301
IF NTSC THEN 33K
IF NTSC THEN 27P (CH)
IC307
INV.
IC307 (1/3) TC7W04F
IC307 (2/3) TC7W04F
IC307 (3/3) TC7W04F
IC325 (3/4) MC74HC32AF
IC325 (4/4) MC74HC32AF
IC325
GATE
IC312 (3/3) TC7W04F
IC312
IC313
CHROMA HUE PHASE SHIFTER
IC309 (3/3) TC7W04F
IC309 (1/3) TC7W04F
IC310 (2/2) TL062CPS
IC310
IC308
M.M
IC308 (1/2) SN74LS123NS
IC308 (2/2) SN74LS123NS
IC311
M.M
IC311 (1/2) SN74LS123NS
IC311 (2/2) SN74LS123NS
IC312 (1/3) TC7W04F
IC313 (1/2) TL062CPS
IC313 (2/2) TL062CPS
IC310 (1/2) TL062CPS
IC309 (2/3) TC7W04F
IC312 (2/3) TC7W04F
FSIG_A
FSIG_B
INV_BLK
EV01
EV02
IC395
IC394
+5V REG.
IC395 L88MS05T-FA-TL
IC394 L88MS05T-FA-TL
CN201
TO MB-61 BOARD (B-LINE MEMORY BLOCK) CN201
(See page 69.)
16


8
9
10
11
12
13
14
15
16
17
18
19
TO MB-61 BOARD (A-LINE MEMORY BLOCK) CN102
(See page 74.)
IC392
IC393
+5 REG.
CN102
DRIVER
READOUT BLKG
HCENT PHASE SHIFTER
0/90 DEG SUBCARRIER PLL
IC302
IC303
M.M
IC304
M.M
IC305
COMP.
IC314
PHASE COMP.
IC314 CX23065A
Q303 VCO BUFFER
IC315
AMP
IC325
GATE
IC313
IC78
IC78 μPB78322
WIPE GEOMETRY PROCESSOR
IC75
IC75 μPB75108
MEMORY CONTROL MICOM
MEMORY MICROCOMPUTER
IC318
D-LATCH
IC319
KEY START SELECT
IC395
IC394
+5V REG.
IC490
M.M
TO MB-61 BOARD (B-LINE MEMORY BLOCK) CN202
(See page 74.)
CN202
VDMC 54 TO (4/4)
BVOK 112
AVOK 111
TO (4/4)

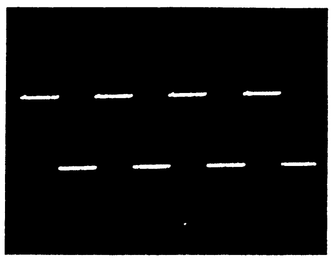

17
18
19
20
21
22
23
24
25
26
IC391
+5V REG.
IC315
AMP
IC316
IC317
Q303 VCO BUFFER
0/90 DEG SUBCARRIER PLL
IC72
MSM72H017FS
WIPE PATTERN GENERATOR
IC320
IC322
SELECTOR
IC321
GATE
IC324
MAIN/WIPE MICOM CLOCK GEN
WIPE KEY TIMING ADJ
METRY PROCESSOR
AD_A_AFC 35
AD_B_AFC 36
AD_PLL1 37
AD_PLL2 38
TO (4/4)
BLA 39
BLB 40
A_RVCC 41
A_RC 42
TO (3/4)
EV_A_RC 43 TO (4/4)
A_RY 44 TO (3/4)
EV_A_RY 45
VCDRV 46
EV_A_HUE 47
EV_B_HUE 48
EV_A_HCENT 49
EV_B_HCENT 50
TO (4/4)
SC0 51
SC1 52
TO (3/4)
DC6V 6 TO (1/4),(3/4),(4/4)
FL400 EMIFIL
VDMC 54 TO (4/4)
VDMM 55
BUS0 56
BUS1 57
BUS2 58
BUS3 59
BUS4 60
BUS5 61
BUS6 62
BUS7 63
TO (4/4)
WIPEON 64 TO (4/4)
WIPEKEY 65 TO (3/4)
MEM_SCK 66
MEM_CS 67
MEM_BUSY 68
CO_RESET 69
WIP_SCK 70
WIP_CS 71
TO (4/4)
MASTERCLK 72 TO (4/4)
EV_B_RY 73 TO (4/4)
B_RY 74 TO (3/4)
EV_B_RC 75 TO (4/4)
B_RC 76
B_RVCC 77
TO (3/4)
HD 78
CP 79
BLKG 80
BF 81
SYNC 82
TO (3/4)
VDMC 54 TO (4/4)
BVDK 112
AVOK 111
TO (4/4)
SCK
NTSC:NOMT
X16 16MHz

DV-11 BOARD 2/4

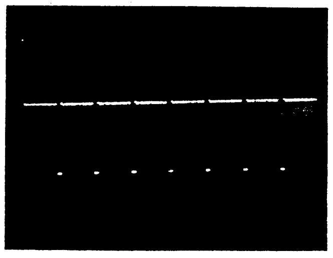
㉙ IC302 ③ 1V/0.05µs 14.18740MH



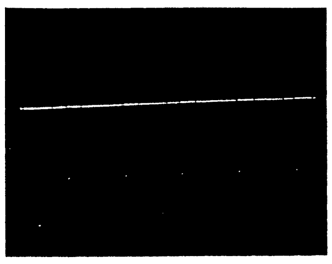
㉚ IC302 ⑤ 2V/50µs



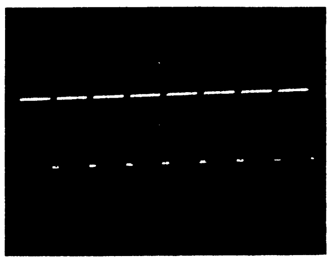
㉛ IC302 ⑦ 2V/50µs



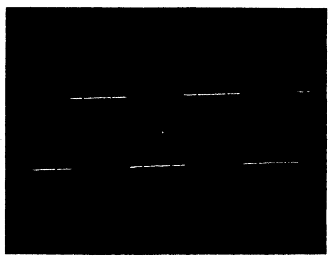
㉜ IC302 ⑨ 2V/10ms



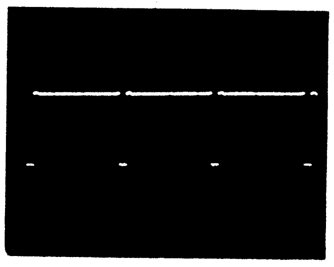
㉝ IC302 ⑫ 2V/50µs



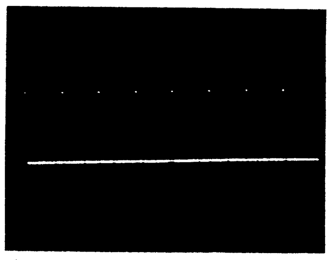
㉞ IC302 ⑭ 2V/10ms



㉟ IC302 ⑯ 2V/20µs



㊱ IC307 ⑤ 2V/50µs

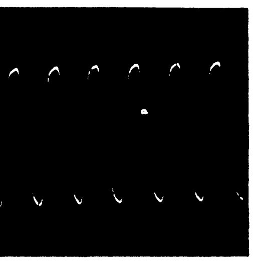


SOURCE SIGNAL
ANALOGUE

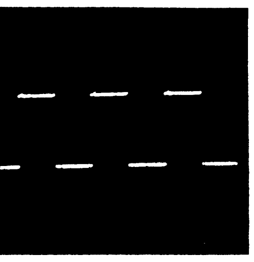
VIDEO SIGNAL		
CHROMA	Y	Y/CHROMA
⇨	⇨	

BOARD 2/4

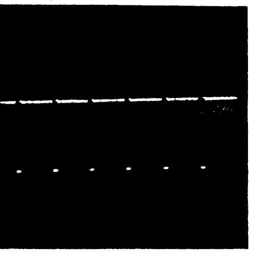
2 ③ 1V/0.05µs 14.18740MHz



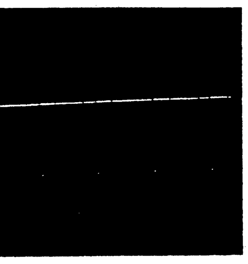
2 ⑤ 2V/50µs



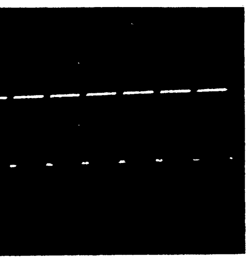
2 ⑦ 2V/50µs



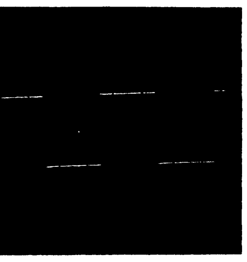
2 ⑨ 2V/10ms



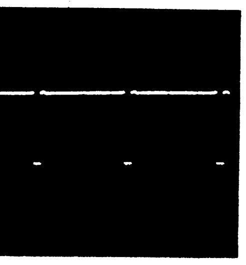
2 ⑫ 2V/50µs



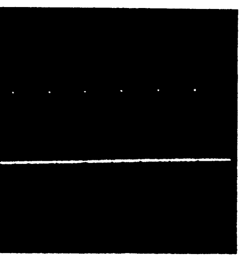
2 ⑭ 2V/10ms



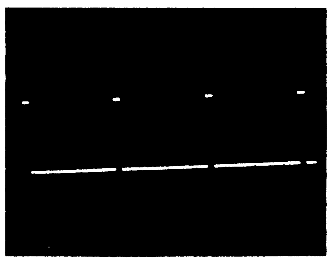
2 ⑯ 2V/20µs



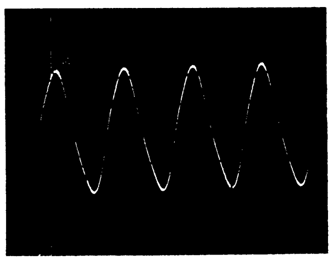
7 ⑤ 2V/50µs



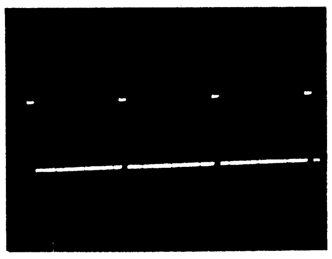
㊲ CN201 ㉑ 2V/20µs



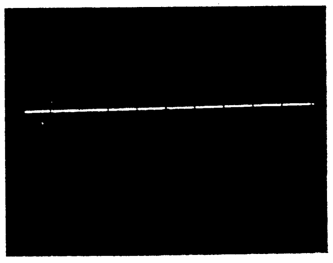
㊳ IC75 ⑨ 1V/0.1µs 4.20987MHz



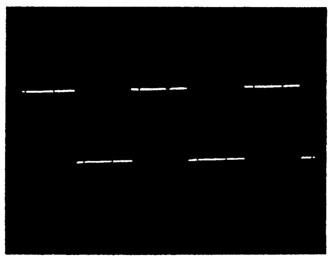
㊴ CN101 ㉑ 2V/20µs



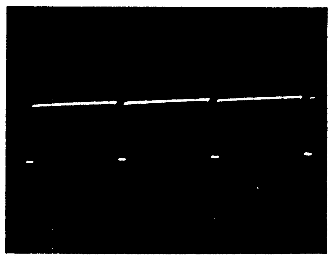
㊵ CN102 ① 2V/10µs



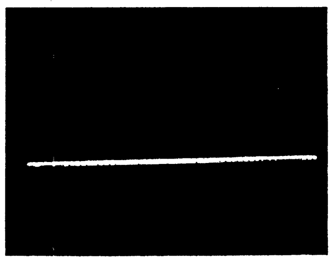
㊶ CN102 ② 2V/10µs



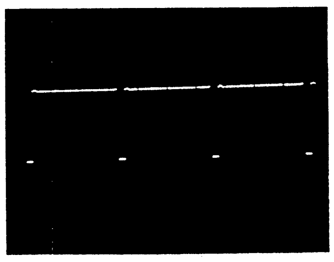
㊷ CN102 ③ 2V/20µs



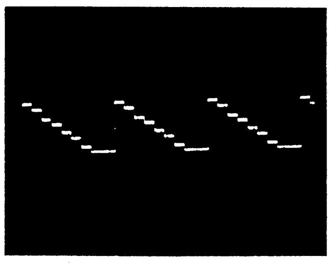
㊸ CN102 ④ 2V/50µs



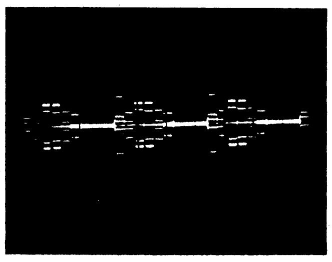
㊹ CN102 ⑤ 2V/20µs



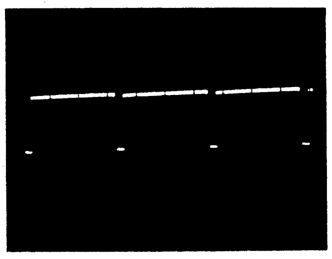
㊺ CN102 ⑦ 0.5V/20µs



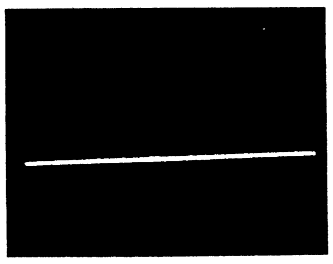
㊻ CN102 ⑪ 0.5V/20µs



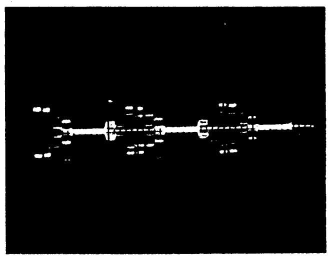
㊼ CN202 ③ 2V/20µs



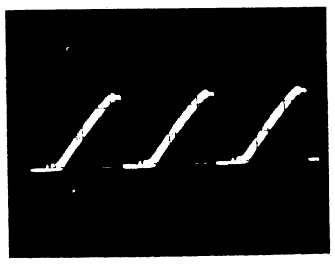
㊽ CN202 ④ 2V/50µs



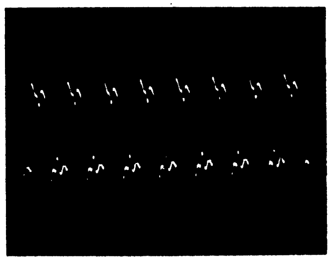
㊾ CN202 ⑦ 0.5V/20µs



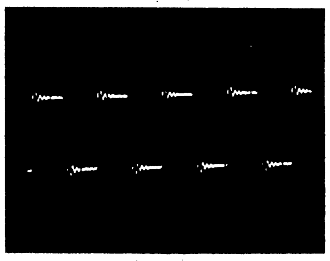
㊿ CN202 ⑪ 0.5V/20µs



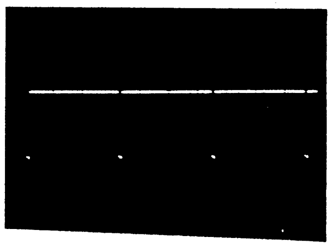
(51) IC78 (51) 2V/0.05µs 15.99761MHz



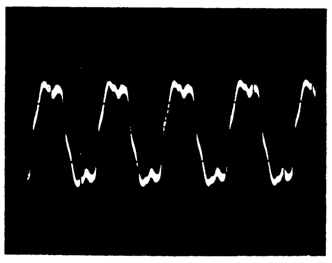
(52) IC317 ③,⑥ 2V/0.1µs



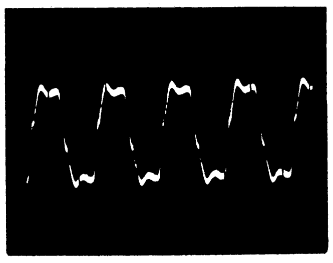
(66) IC302 ⑱ 2V/20µs



(67) TP-CL409 0.1V/0.1µs



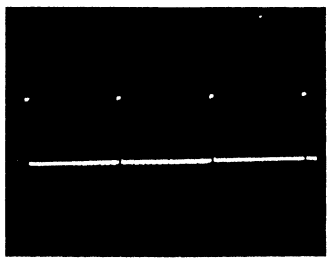
(68) TP-CL410 0.1V/0.1µs



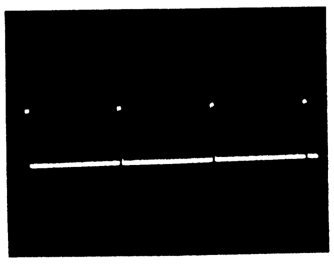
SIGNAL
UE

VIDEO SIGNAL			AUDIO SIGNAL
MA	Y	Y/CHROMA	
	⇨		

㉔ TP-CL566 0.5V/20μs

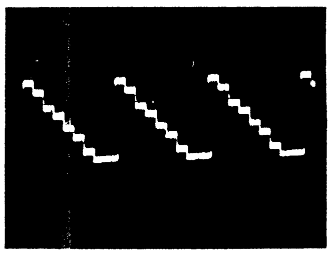


㉕ TP-CL567 0.5V/20μs

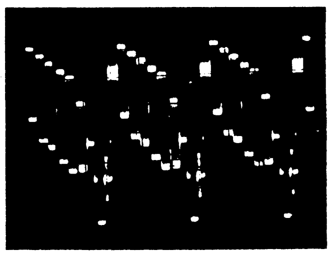


DV-11 BOARD 3/4

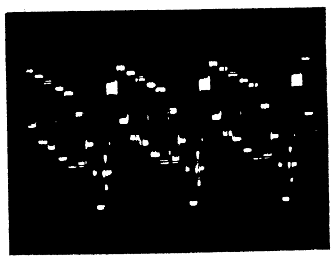
⑫Q501 Ⓔ 0.2V/20μs



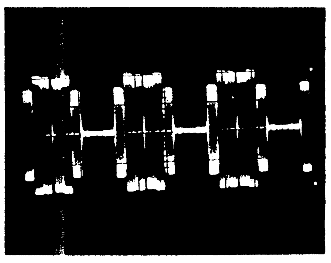
⑱ Q568 Ⓔ 0.2V/20μs



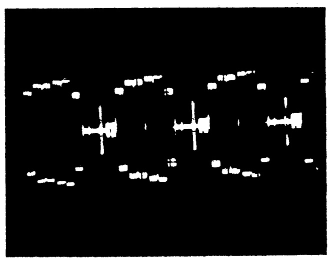
㉖ CN502 ⑯,⑲ 0.5V/20μs



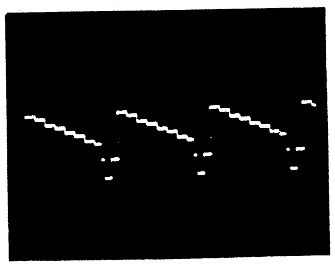
⑬ Q502 Ⓔ 0.2V/20μs



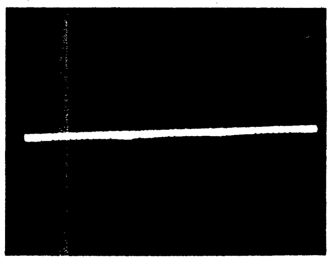
⑲ Q570 Ⓔ 0.2V/20μs



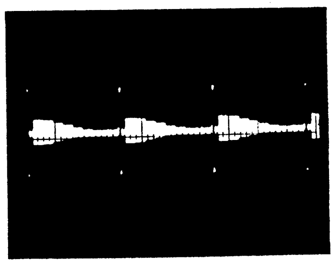
㉗ CN502 ⑬ 0.5V/20μs



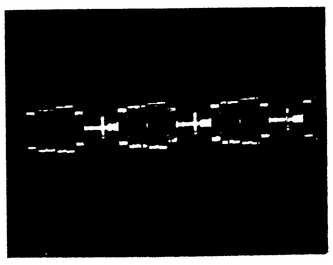
⑭ Q503 Ⓔ 50mV/20μs



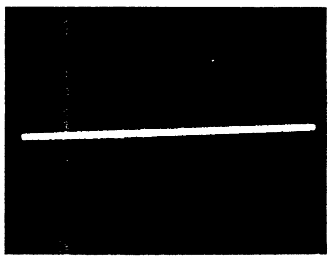
⑳ Q571 Ⓔ 0.1V/20μs



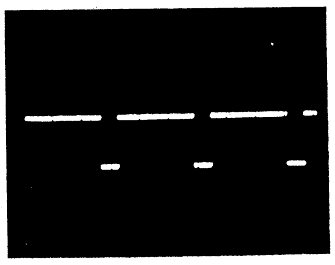
㉘ CN502 ⑦ 0.5V/20μs



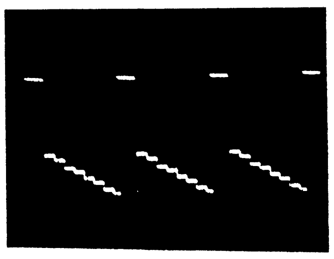
⑮ Q504 Ⓔ 50mV/20μs



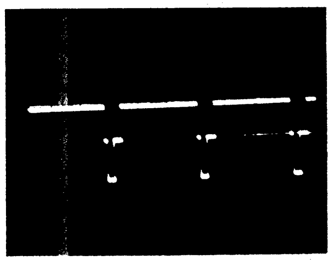
㉑ Q601 Ⓔ 50mV/20μs



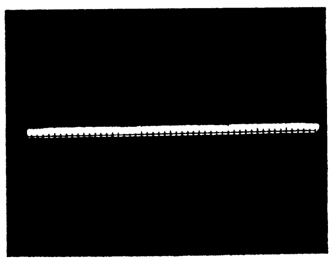
(63) IC561 ⑭ 0.2V/20μs



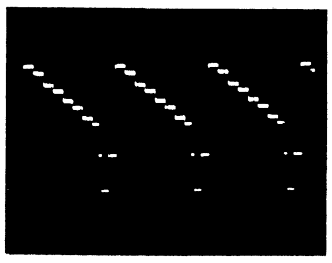
⑯ Q564 Ⓔ 0.2V/20μs



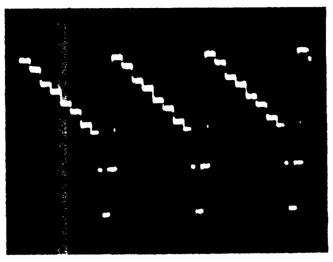
㉒ Q602 Ⓔ 50mV/20μs



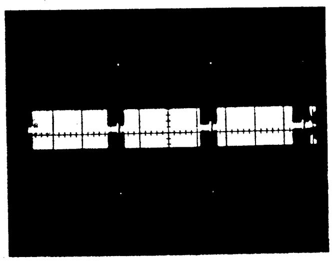
(64) CN502 ⑩ 0.5V/20μs



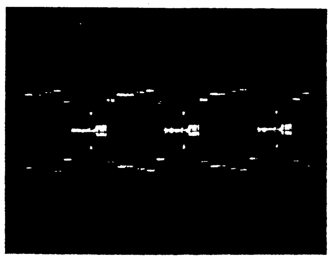
⑰ Q566 Ⓔ 0.2V/20μs



㉓ Q603 Ⓔ 50mV/20μs



(65) CN502 ④ 0.5V/20μs

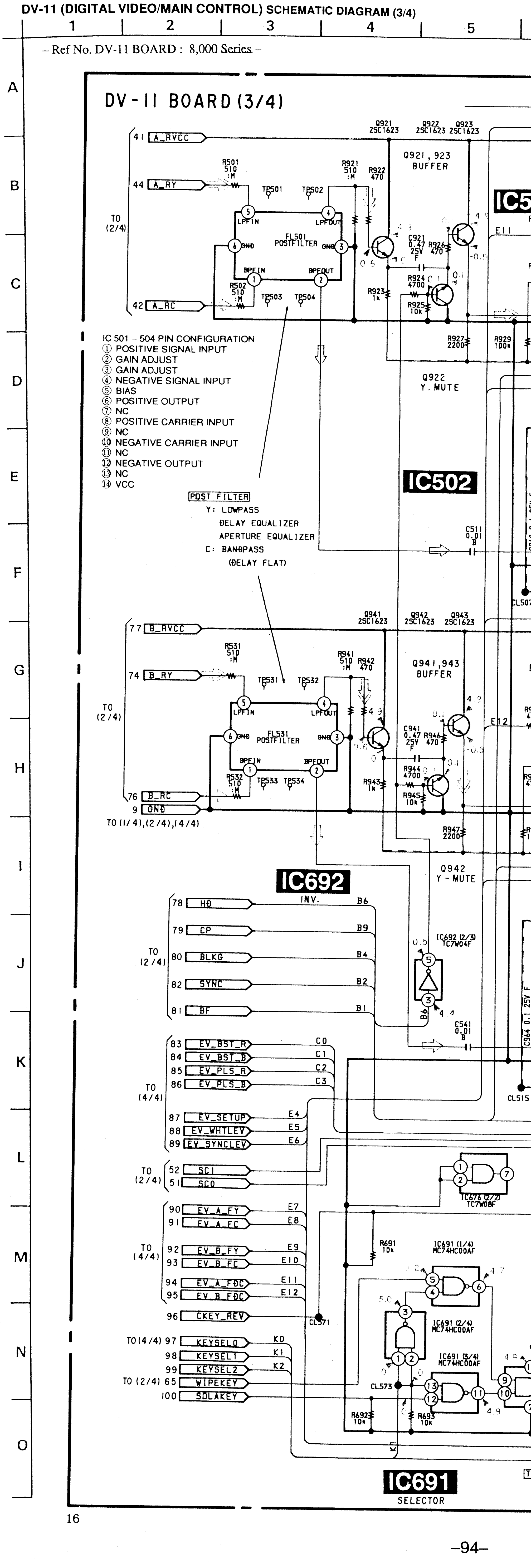


SOURCE SIGNAL
ANALOGUE

VIDEO SIGNAL			AUDIO SIGNAL
CHROMA	Y	Y/CHROMA	
⇨	⇨	⇨	

DV-11 (DIGITAL VIDEO/MAIN CONTROL) SCHEMATIC DIAGRAM (3/4)

– Ref No. DV-11 BOARD : 8,000 Series –


1
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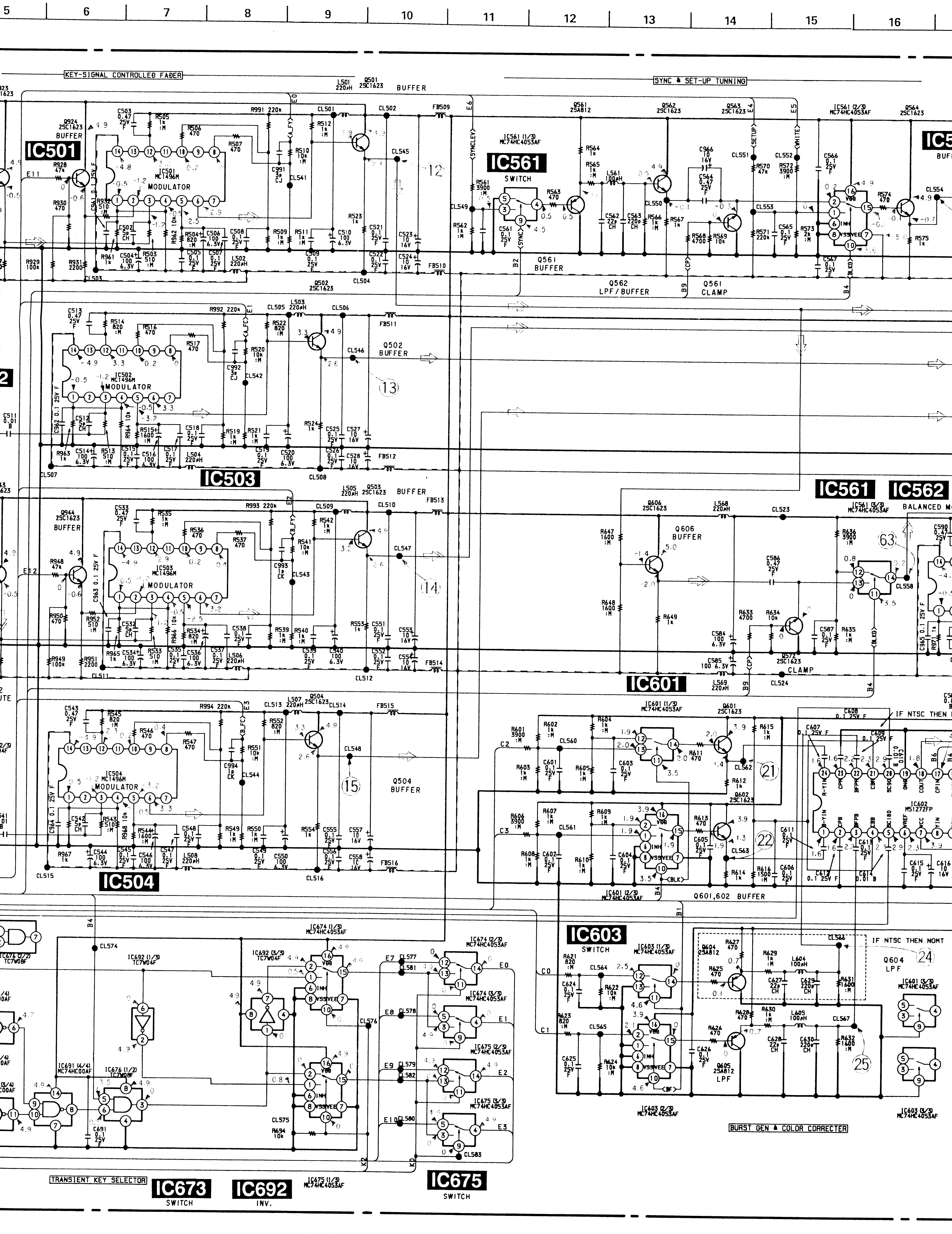
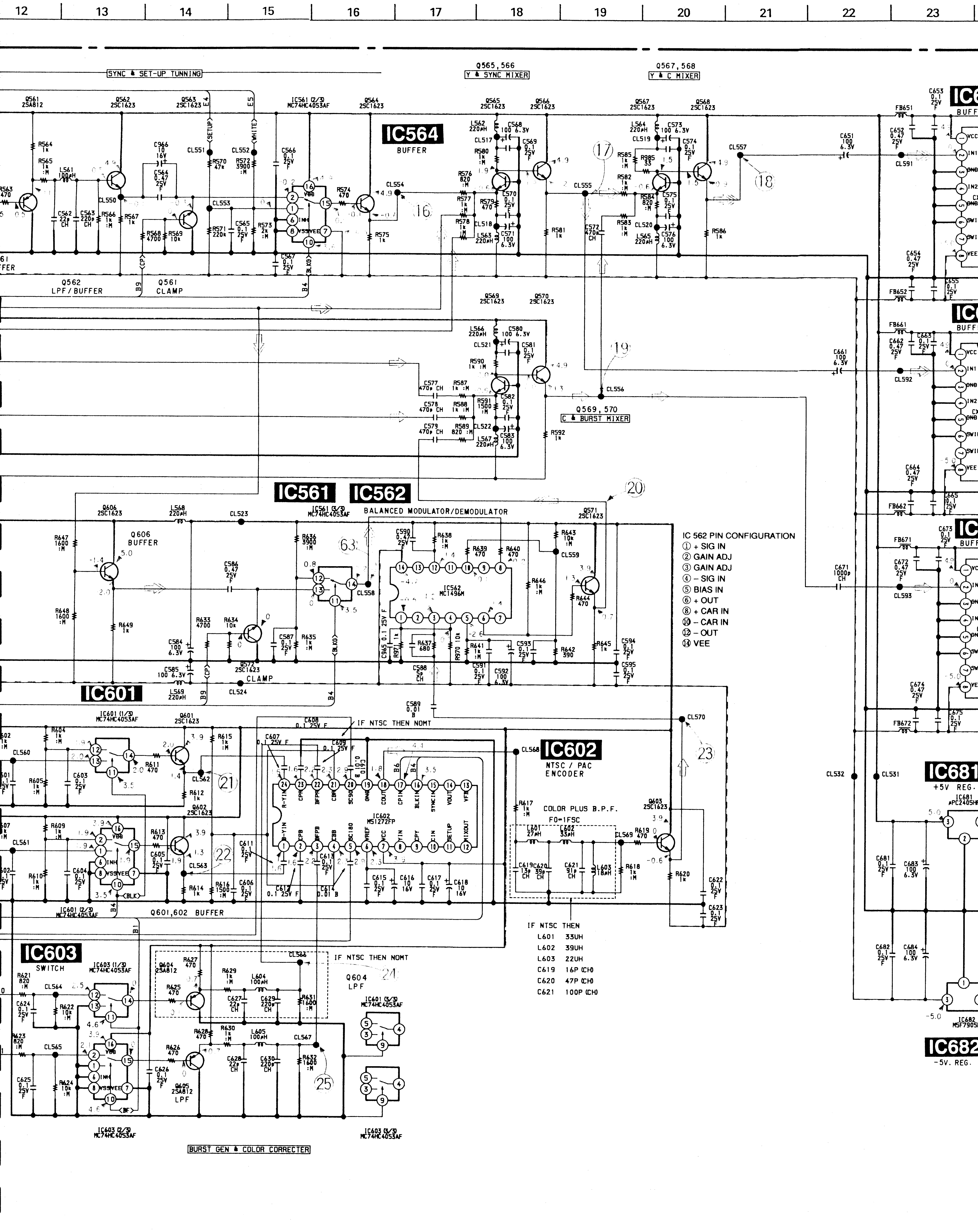
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
DV-11 BOARD (3/4)
Q921 2SC1623
Q922 2SC1623
Q923 2SC1623
Q921,923 BUFFER
41 A_RVCC
44 A_RY
42 A_RC
TO (2/4)
R501 510 :M
R502 510 :M
TP501
TP502
TP503
TP504
LPFIN
LPFOUT
FL501 POSTFILTER
GND
BPFIN
BPFOUT
R921 510 :M
R922 470
C921 0.47 25V F
R926 470
R924 4700
R923 1k
R925 10k
R927 2200
R929 100k
E11
IC 501 – 504 PIN CONFIGURATION
① POSITIVE SIGNAL INPUT
② GAIN ADJUST
③ GAIN ADJUST
④ NEGATIVE SIGNAL INPUT
⑤ BIAS
⑥ POSITIVE OUTPUT
⑦ NC
⑧ POSITIVE CARRIER INPUT
⑨ NC
⑩ NEGATIVE CARRIER INPUT
⑪ NC
⑫ NEGATIVE OUTPUT
⑬ NC
⑭ VCC
Q922 Y.MUTE
IC502
POST FILTER
Y: LOWPASS
DELAY EQUALIZER
APERTURE EQUALIZER
C: BANDPASS
(DELAY FLAT)
C511 0.01 B
CL507
Q941 2SC1623
Q942 2SC1623
Q943 2SC1623
77 B_RVCC
74 B_RY
76 B_RC
9 GND
TO (1/4),(2/4),(4/4)
R531 510 :M
R532 510 :M
TP531
TP532
TP533
TP534
FL531 POSTFILTER
R941 510 :M
R942 470
Q941,943 BUFFER
C941 0.47 25V F
R946 470
R944 4700
R943 1k
R945 10k
R947 2200
E12
Q942 Y-MUTE
IC692
INV.
78 HD
79 CP
80 BLKG
82 SYNC
81 BF
B6
B9
B4
B2
B1
IC692 (2/3) TC7W04F
C541 0.01 B
83 EV_BST_R
84 EV_BST_B
85 EV_PLS_R
86 EV_PLS_B
C0
C1
C2
C3
TO (4/4)
CL515
87 EV_SETUP
88 EV_WHTLEV
89 EV_SYNCLEV
E4
E5
E6
52 SC1
51 SC0
IC676 (2/2) TC7W08F
90 EV_A_FY
91 EV_A_FC
92 EV_B_FY
93 EV_B_FC
94 EV_A_FBC
95 EV_B_FBC
E7
E8
E9
E10
E11
E12
R691 10k
IC691 (1/4) MC74HC00AF
96 CKEY_REV
CL571
IC691 (2/4) MC74HC00AF
IC691 (3/4) MC74HC00AF
TO (4/4) 97 KEYSEL0
98 KEYSEL1
99 KEYSEL2
TO (2/4) 65 WIPEKEY
100 SOLAKEY
K0
K1
K2
CL573
R692 10k
R693 10k
IC691
SELECTOR
16


KEY-SIGNAL CONTROLLED FADER
SYNC & SET-UP TUNNING
IC501
BUFFER
MODULATOR
IC1501 MC1496M
Q501 2SC1623 BUFFER
IC561
SWITCH
IC561 (1/3) MC74HC4053AF
Q561 BUFFER
Q562 LPF/BUFFER
Q561 CLAMP
Q502 BUFFER
IC502 MC1496M MODULATOR
IC503
Q503 2SC1623 BUFFER
IC503 MC1496M MODULATOR
IC561
IC562
BALANCED MO
Q606 BUFFER
Q572 2SC1623 CLAMP
IC601
IC601 (1/3) MC74HC4053AF
IF NTSC THEN
IC602 M51272FP
IC504 MC1496M MODULATOR
Q504 BUFFER
IC504
Q601,602 BUFFER
IC601 (2/3) MC74HC4053AF
IC603
SWITCH
IC603 (1/3) MC74HC4053AF
IF NTSC THEN NOMT
Q604 LPF
Q605 LPF
IC603 (2/3) MC74HC4053AF
IC603 (3/3) MC74HC4053AF
BURST GEN & COLOR CORRECTER
IC674 (1/3) MC74HC4053AF
IC674 (2/3) MC74HC4053AF
IC674 (3/3) MC74HC4053AF
IC675 (1/3) MC74HC4053AF
IC675 (2/3) MC74HC4053AF
IC675 (3/3) MC74HC4053AF
IC692 (1/3) TC7W04F
IC692 (3/3) TC7W04F
IC691 (4/4) MC74HC00AF
IC676 (1/2) TC7W08F
TRANSIENT KEY SELECTOR
IC673
SWITCH
IC692
INV.
IC675
SWITCH


12
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18
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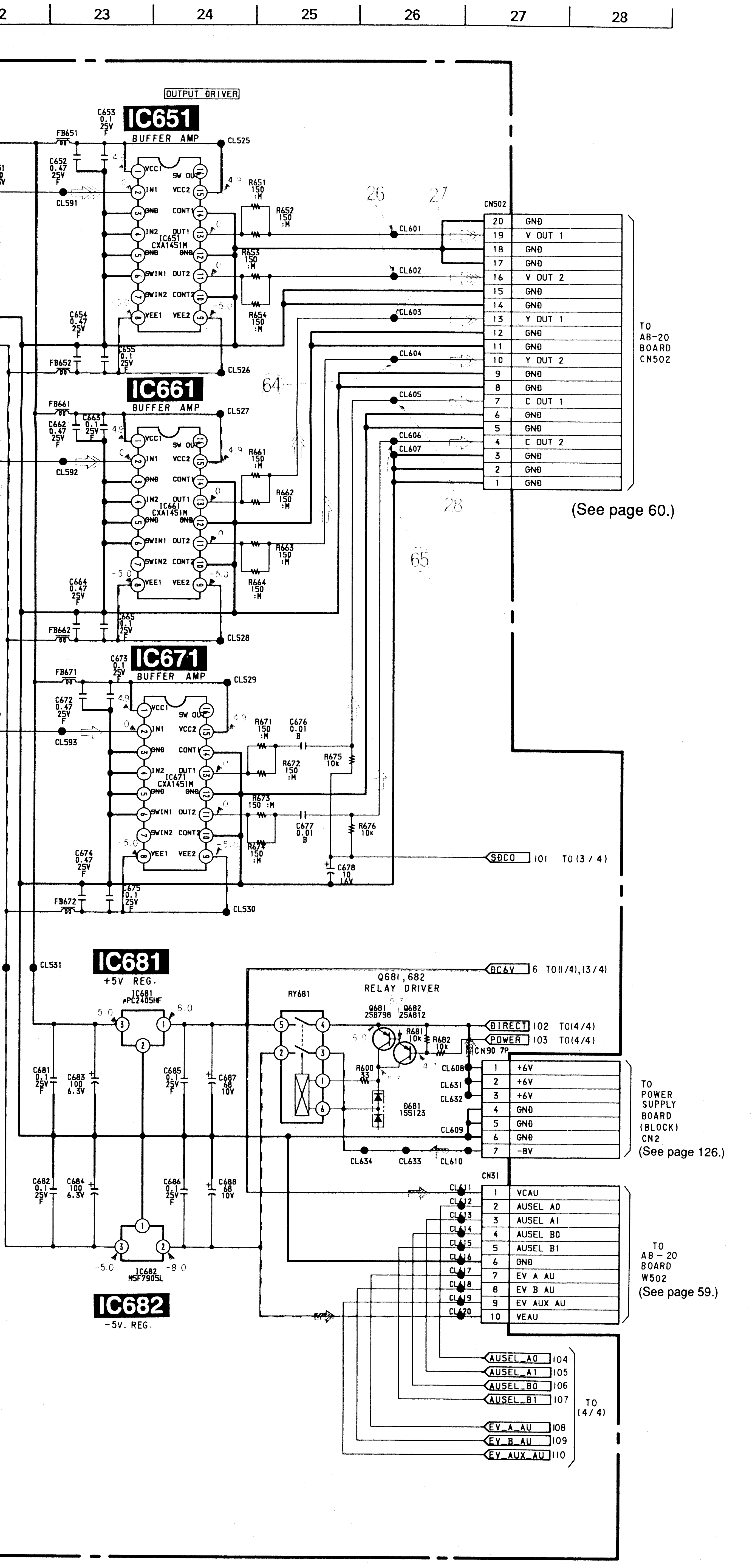
20
21
22
23
SYNC & SET-UP TUNNING
Q565,566
Y & SYNC MIXER
Q567,568
Y & C MIXER
Q561 2SA812
Q562 2SC1623
Q563 2SC1623
IC561 (2/3) MC74HC4053AF
Q564 2SC1623
Q565 2SC1623
Q566 2SC1623
Q567 2SC1623
Q568 2SC1623
IC564
BUFFER
SETUP
WHITE
CL551
CL552
CL553
CL554
CL555
CL557
Q562 LPF/BUFFER
Q561 CLAMP
Q569 2SC1623
Q570 2SC1623
CL556
Q569,570
C & BURST MIXER
IC561
IC562
BALANCED MODULATOR/DEMODULATOR
Q606 2SC1623
Q606 BUFFER
IC561 (3/3) MC74HC4053AF
IC562 MC1496M
Q571 2SC1623
Q572 2SC1623
CLAMP
CL558
CL559
IC601
IC601 (1/3) MC74HC4053AF
Q601 2SC1623
Q602 2SC1623
Q601,602 BUFFER
IF NTSC THEN NOMT
IC602
NTSC / PAC ENCODER
IC602 M51272FP
COLOR PLUS B.P.F.
FO=1FSC
Q603 2SC1623
CL570
IC603
SWITCH
IC603 (1/3) MC74HC4053AF
Q604 2SA812
Q604 LPF
Q605 2SA812
LPF
IF NTSC THEN NOMT
IC601 (3/3) MC74HC4053AF
IC603 (2/3) MC74HC4053AF
IC603 (3/3) MC74HC4053AF
BURST GEN & COLOR CORRECTER
IC681
+5V REG.
IC681 μPC2405HF
IC682
-5V. REG.
IC682 M5F7905L
BUFF
VCC
IN1
GND
IN2
SW1
VEE
(16)
(17)
(18)
(19)
(20)
(21)
(22)
(23)
(24)
(25)
(63)

IC 562 PIN CONFIGURATION
① + SIG IN
② GAIN ADJ
③ GAIN ADJ
④ – SIG IN
⑤ BIAS IN
⑥ + OUT
⑧ + CAR IN
⑩ – CAR IN
⑫ – OUT
⑭ VEE

IF NTSC THEN

L601	33UH
L602	39UH
L603	22UH
C619	16P (CH)
C620	47P (CH)
C621	100P (CH)


2
23
24
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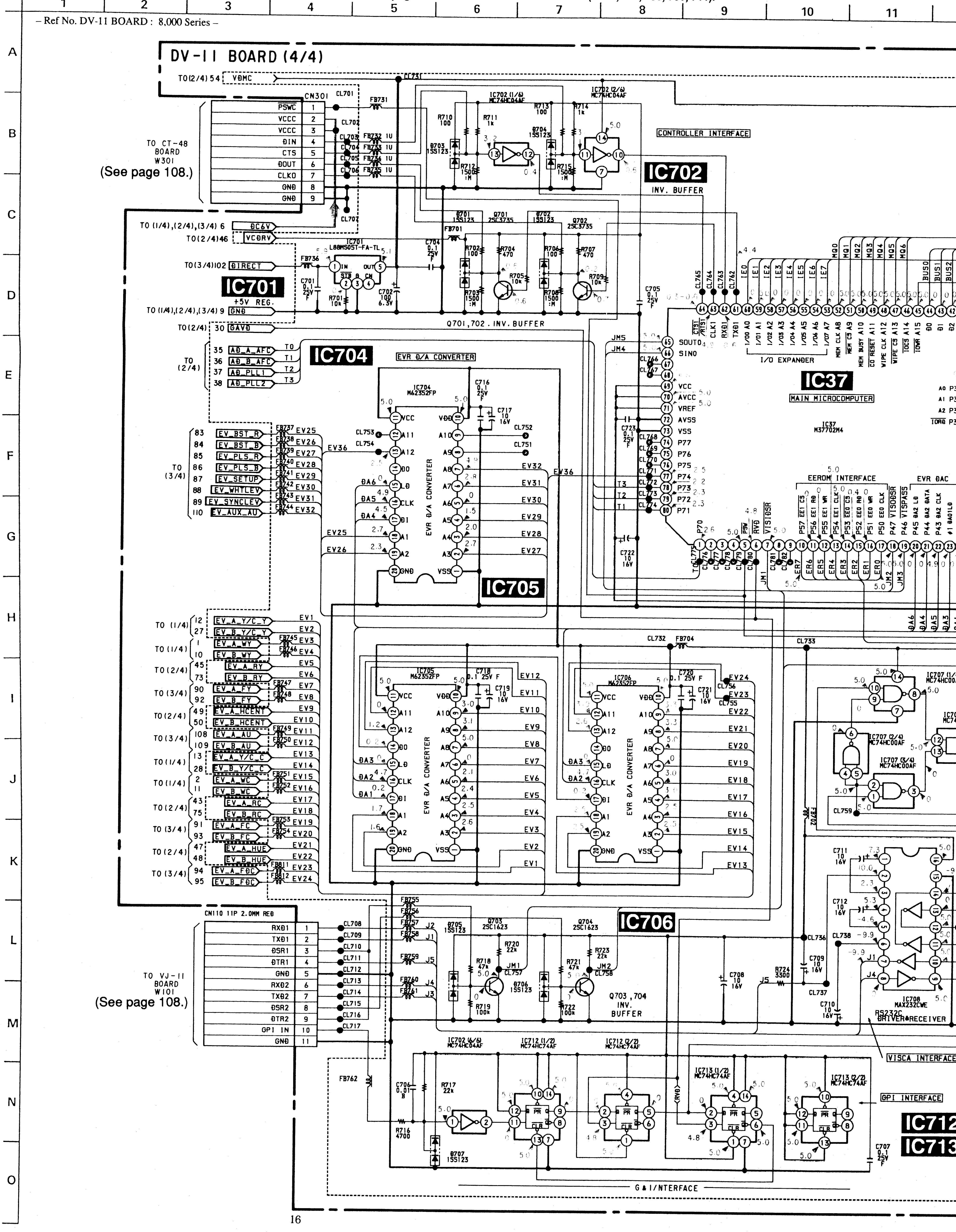
26
27
28
OUTPUT DRIVER
IC651
BUFFER AMP
C653 0.1 25V F
FB651
C652 0.47 25V F
CL591
CL525
R651 150 :M
R652 150 :M
IC651 CXA1451M
VCC1
IN1
GND
IN2
SWIN1
SWIN2
VEE1
SW OUT
VCC2
CONT1
OUT1
OUT2
CONT2
VEE2
R653 150 :M
R654 150 :M
C654 0.47 25V F
C655 0.1 25V F
FB652
CL526
CL601
CL602
CL603
CL604
CL605
CL606
CL607
CN502
20 GND
19 V OUT 1
18 GND
17 GND
16 V OUT 2
15 GND
14 GND
13 Y OUT 1
12 GND
11 GND
10 Y OUT 2
9 GND
8 GND
7 C OUT 1
6 GND
5 GND
4 C OUT 2
3 GND
2 GND
1 GND
TO AB-20 BOARD CN502
(See page 60.)
IC661
BUFFER AMP
FB661
C662 0.47 25V F
C663 0.1 25V F
CL527
CL592
R661 150 :M
R662 150 :M
IC661 CXA1451M
R663 150 :M
R664 150 :M
C664 0.47 25V F
C665 0.1 25V F
FB662
CL528
IC671
BUFFER AMP
C673 0.1 25V F
FB671
C672 0.47 25V F
CL529
CL593
R671 150 :M
C676 0.01 B
R672 150 :M
R675 10k
IC671 CXA1451M
R673 150 :M
C677 0.01 B
R676 10k
R674 150 :M
C674 0.47 25V F
C675 0.1 25V F
C678 10 16V
FB672
CL530
SDCO 101 TO (3/4)
CL531
IC681
+5V REG.
IC681 μPC2405HF
DC6V 6 TO(1/4),(3/4)
Q681,682
RELAY DRIVER
RY681
Q681 2SB798
Q682 2SA812
R681 10k
R682 10k
DIRECT 102 TO(4/4)
POWER 103 TO(4/4)
CN90 7P
R600 33
D681 1SS123
CL608
CL631
CL632
CL609
1 +6V
2 +6V
3 +6V
4 GND
5 GND
6 GND
7 -8V
TO POWER SUPPLY BOARD (BLOCK) CN2
(See page 126.)
CL634
CL633
CL610
C681 0.1 25V F
C683 100 6.3V
C685 0.1 25V F
C687 68 10V
C682 0.1 25V F
C684 100 6.3V
C686 0.1 25V F
C688 68 10V
IC682 MSF7905L
IC682
-5V. REG.
CN31
CL611
CL612
CL613
CL614
CL615
CL616
CL617
CL618
CL619
CL620
1 VCAU
2 AUSEL A0
3 AUSEL A1
4 AUSEL B0
5 AUSEL B1
6 GND
7 EV A AU
8 EV B AU
9 EV AUX AU
10 VEAU
TO AB-20 BOARD W502
(See page 59.)
AUSEL_A0 104
AUSEL_A1 105
AUSEL_B0 106
AUSEL_B1 107
EV_A_AU 108
EV_B_AU 109
EV_AUX_AU 110
TO (4/4)
26
27
64
28
65

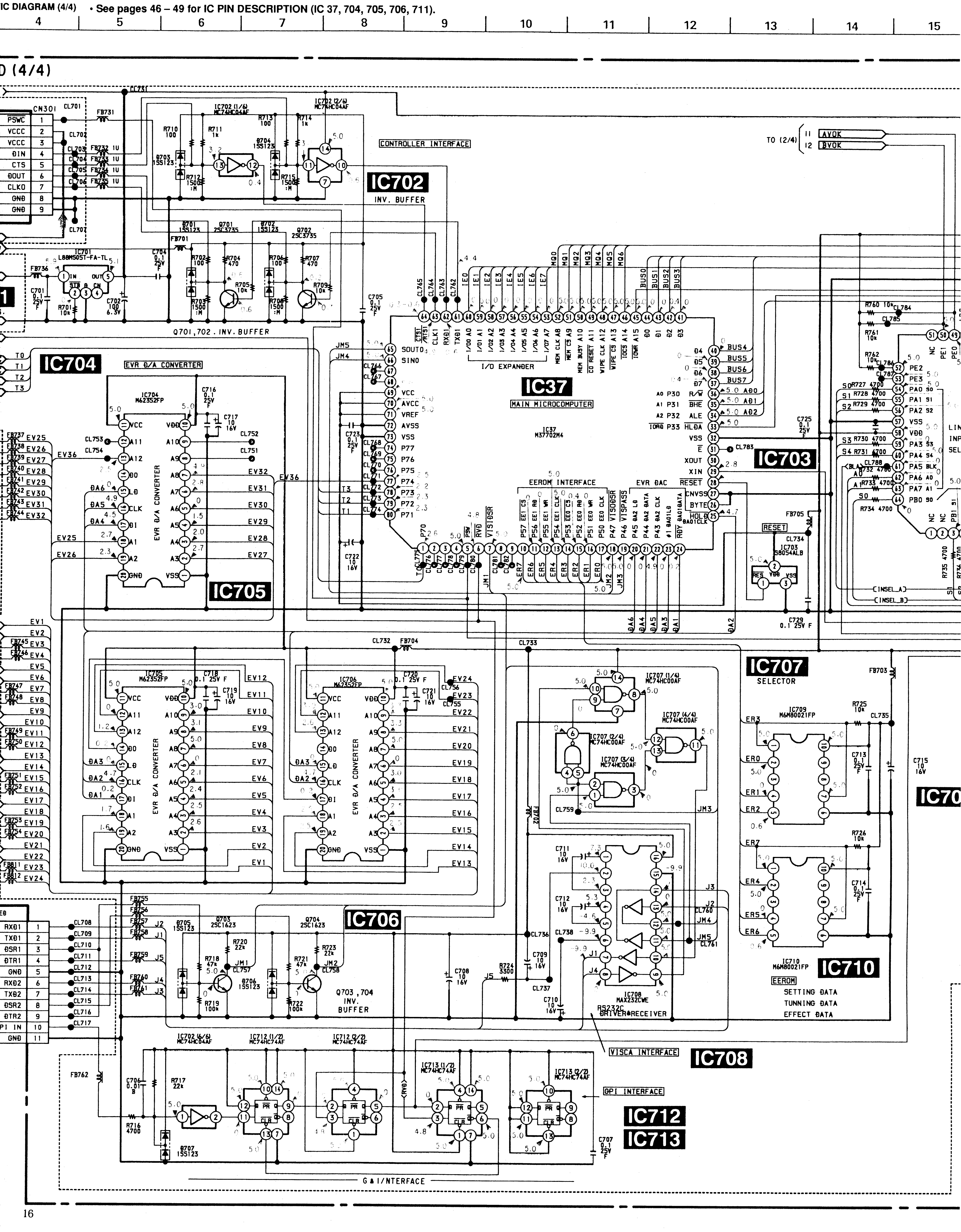
DV-11 (DIGITAL VIDEO/MAIN CONTROL) SCHEMATIC DIAGRAM (4/4) • See pages 46 – 49 for IC PIN DESCRIPTION (IC 37, 704, 705, 706, 711).

– Ref No. DV-11 BOARD : 8,000 Series –



DV-11 BOARD (4/4)
TO(2/4)54 VBMC
CN301
PSWC
VCCC
VCCC
DIN
CTS
DOUT
CLKO
GND
GND
TO CT-48 BOARD W301
(See page 108.)
TO (1/4),(2/4),(3/4) 6 DC6V
TO(2/4)46 VCDRV
TO(3/4)102 DIRECT
TO (1/4),(2/4),(3/4) 9 GND
IC701 L88MS05T-FA-TL
+5V REG.
IC701
IC702 (1/6) MC74HC04AF
IC702 (2/6) MC74HC04AF
CONTROLLER INTERFACE
IC702
INV. BUFFER
Q701 2SC3735
Q702 2SC3735
D701 1SS123
D702 1SS123
Q701,702. INV. BUFFER
TO(2/4) 30 GAVD
TO (2/4) 35 AD_A_AFC
36 AD_B_AFC
37 AD_PLL1
38 AD_PLL2
IC704
EVR D/A CONVERTER
IC704 M62352FP
EVR D/A CONVERTER
IC705
TO (3/4)
83 EV_BST_R
84 EV_BST_B
85 EV_PLS_R
86 EV_PLS_B
87 EV_SETUP
88 EV_WHTLEV
89 EV_SYNCLEV
110 EV_AUX_AU
TO (1/4) 12 EV_A_Y/C_Y
27 EV_B_Y/C_Y
TO (1/4) 1 EV_A_WY
10 EV_B_WY
TO (2/4) 45 EV_A_RY
73 EV_B_RY
TO (3/4) 90 EV_A_FY
92 EV_B_FY
TO (2/4) 49 EV_A_HCENT
50 EV_B_HCENT
TO (3/4) 108 EV_A_AU
109 EV_B_AU
TO (1/4) 13 EV_A_Y/C_C
28 EV_B_Y/C_C
TO (1/4) 2 EV_A_WC
11 EV_B_WC
TO (2/4) 43 EV_A_RC
75 EV_B_RC
TO (3/4) 91 EV_A_FC
93 EV_B_FC
TO (2/4) 47 EV_A_HUE
48 EV_B_HUE
TO (3/4) 94 EV_A_FDC
95 EV_B_FDC
IC705 M62352FP
IC706 M62352FP
IC706
IC37
MAIN MICROCOMPUTER
IC37 M37702M4
I/O EXPANDER
EEROM INTERFACE
EVR DAC
CN110 11P 2.0MM REG
RXD1
TXD1
DSR1
DTR1
GND
RXD2
TXD2
DSR2
DTR2
GPI IN
GND
TO VJ-11 BOARD W101
(See page 108.)
Q703 2SC1623
Q704 2SC1623
Q703,704 INV. BUFFER
IC707 MC74HC00AF
IC708 MAX232CWE
RS232C DRIVER•RECEIVER
VISCA INTERFACE
IC712 (1/2) MC74HC74AF
IC712 (2/2) MC74HC74AF
IC713 (1/2) MC74HC74AF
IC713 (2/2) MC74HC74AF
GPI INTERFACE
IC712
IC713
G & I/NTERFACE
16

IC DIAGRAM (4/4) • See pages 46 – 49 for IC PIN DESCRIPTION (IC 37, 704, 705, 706, 711).



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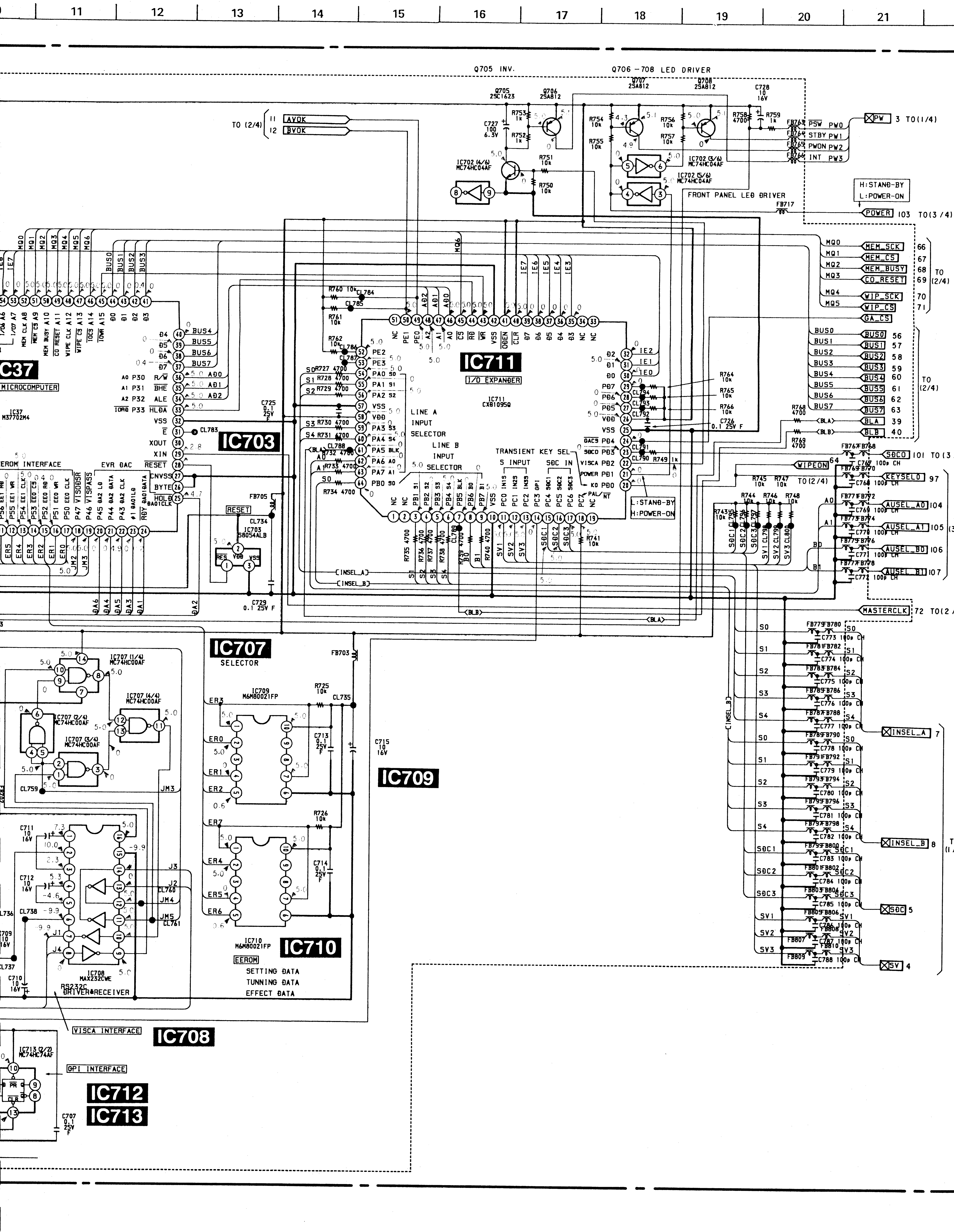
D (4/4)
CN301
PSWC
VCCC
VCCC
ØIN
CTS
ØOUT
CLKO
GNØ
GNØ
CONTROLLER INTERFACE
IC702
INV. BUFFER
IC702 (1/6) MC74HC04AF
IC702 (2/6) MC74HC04AF
IC701 L88MS05T-FA-TL
Q701,702 . INV. BUFFER
TO (2/4)
AVOK
BVOK
IC704
EVR Ø/A CONVERTER
IC704 M62352FP
IC705
IC705 M62352FP
IC706
IC706 M62352FP
EVR Ø/A CONVERTER
IC37
MAIN MICROCOMPUTER
IC37 M37702M4
I/O EXPANDER
EEROM INTERFACE
EVR ØAC
IC703
IC703 S8054ALB
RESET
IC707
SELECTOR
IC707 (1/4) MC74HC00AF
IC707 (2/4) MC74HC00AF
IC707 (3/4) MC74HC00AF
IC707 (4/4) MC74HC00AF
IC709 M6M80021FP
IC710 M6M80021FP
IC710
EEROM
SETTING ØATA
TUNNING ØATA
EFFECT ØATA
IC708 MAX232CWE
RS232C ØRIVER&RECEIVER
VISCA INTERFACE
IC708
Q703, 704 INV. BUFFER
RXØ1
TXØ1
ØSR1
ØTR1
GNØ
RXØ2
TXØ2
ØSR2
ØTR2
GPI IN
GNØ
IC702 (6/6) MC74HC04AF
IC712 (1/2) MC74HC74AF
IC712 (2/2) MC74HC74AF
IC713 (1/2) MC74HC74AF
IC713 (2/2) MC74HC74AF
GPI INTERFACE
IC712
IC713
G & I/NTERFACE



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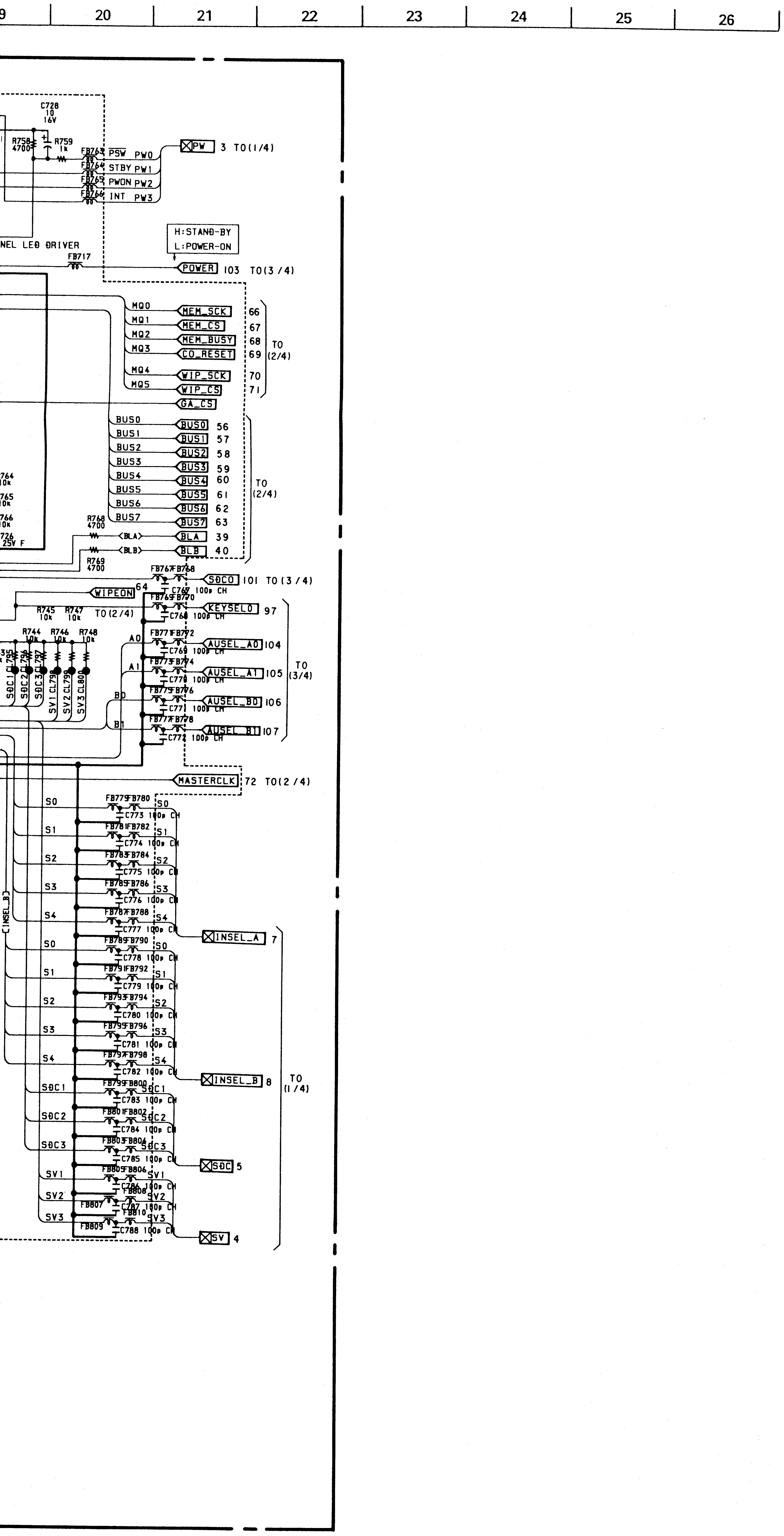
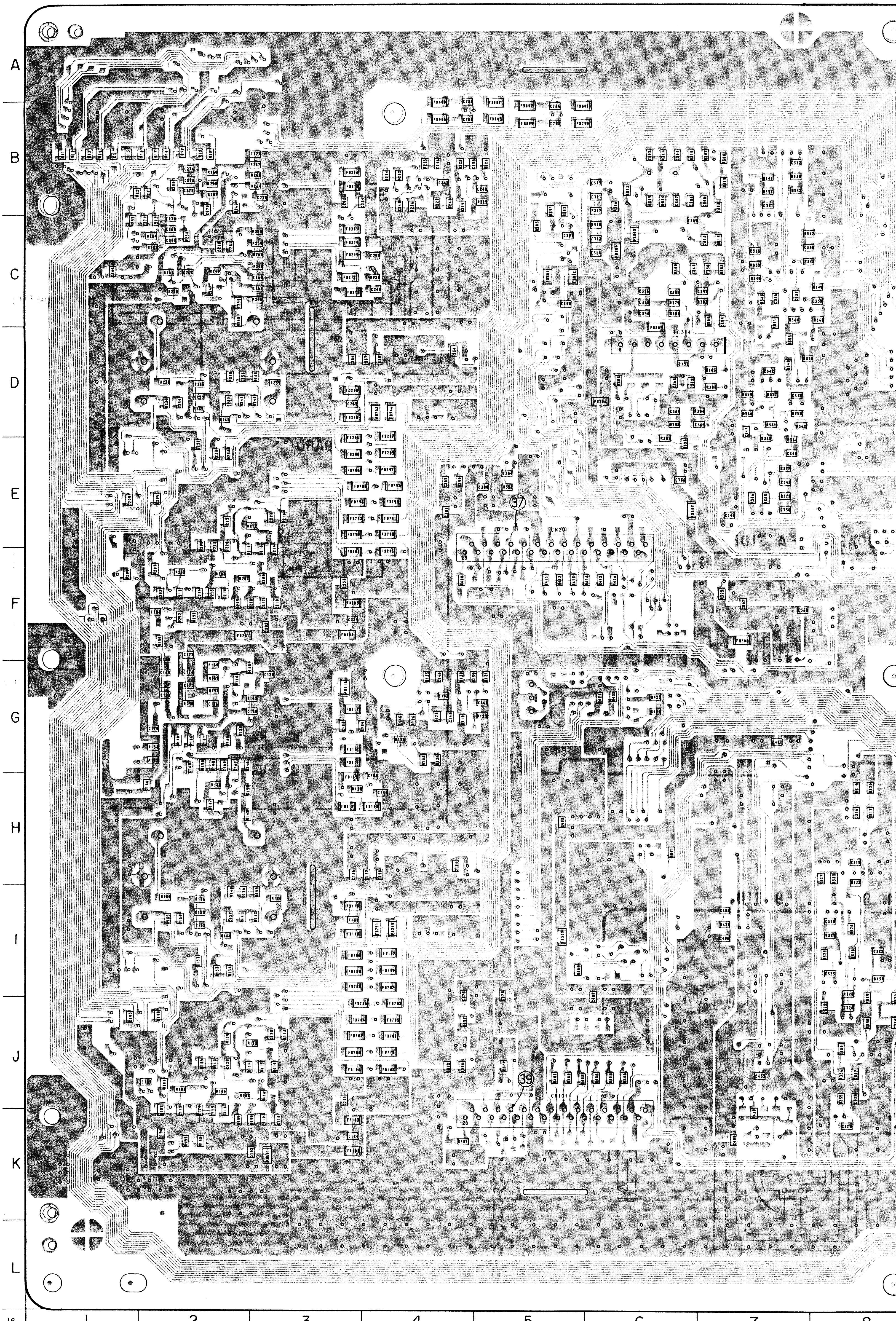
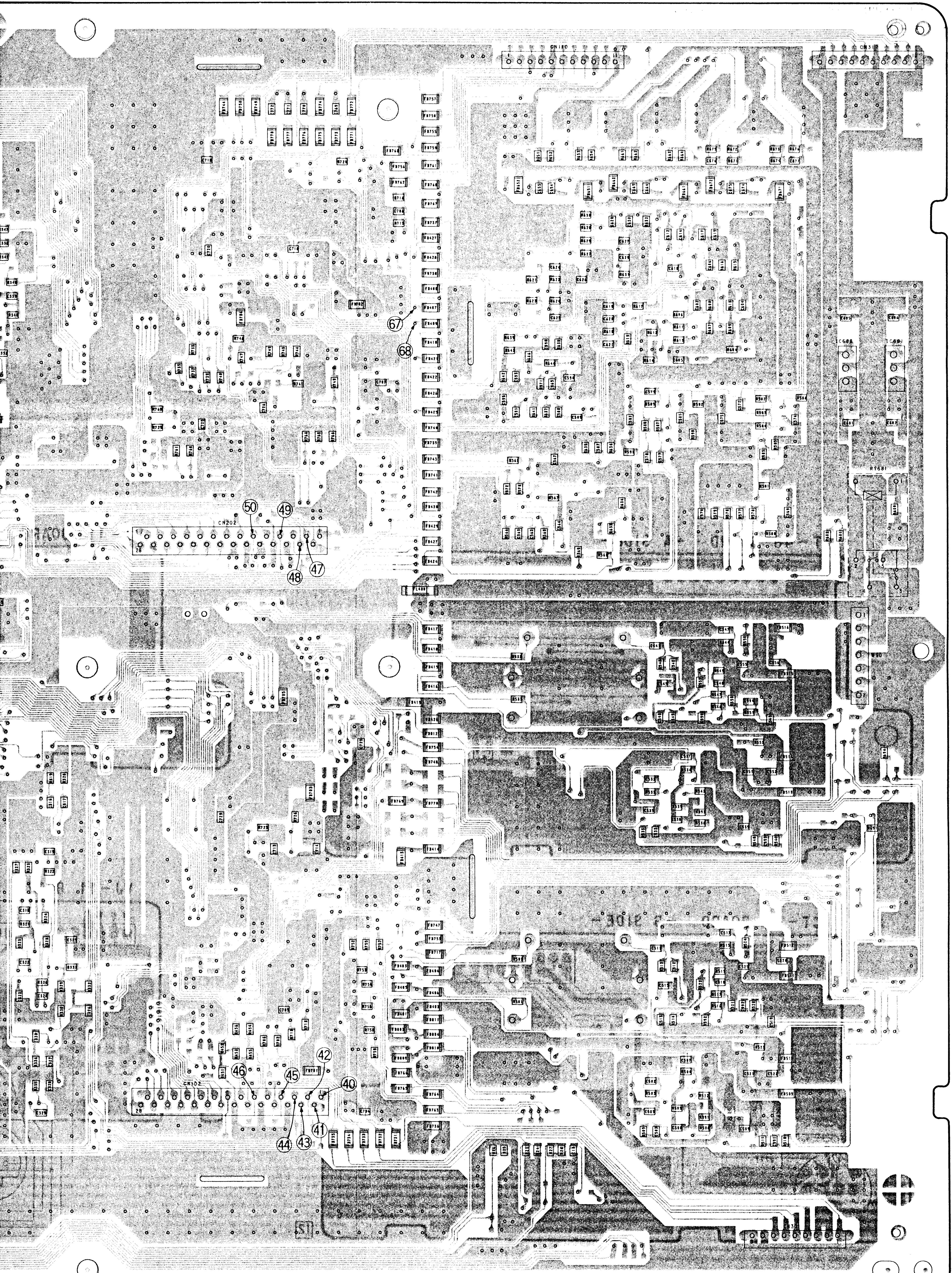
21
Q705 INV.
Q706 - 708 LED DRIVER
Q705 2SC1623
Q706 2SA812
Q707 2SA812
Q708 2SA812
TO (2/4)
AVOK
BVOK
PW
3 TO(1/4)
PSW PW0
STBY PW1
PWON PW2
INT PW3
IC702 (4/6) MC74HC04AF
IC702 (3/6) MC74HC04AF
IC702 (5/6) MC74HC04AF
FRONT PANEL LED DRIVER
H:STAND-BY
L:POWER-ON
POWER
103 TO(3/4)
MEM_SCK
MEM_CS
MEM_BUSY
CO_RESET
WIP_SCK
WIP_CS
GA_CS
BUS0
BUS1
BUS2
BUS3
BUS4
BUS5
BUS6
BUS7
BLA
BLB
IC37
MICROCOMPUTER
IC37 M37702M4
IC703
IC711
I/O EXPANDER
IC711 CX81095Q
LINE A INPUT SELECTOR
LINE B INPUT SELECTOR
TRANSIENT KEY SEL
S INPUT
SDC IN
L:STAND-BY
H:POWER-ON
IC703 S8054ALB
RESET
EEROM INTERFACE
EVR DAC
SDCO
101 TO(3
WIPEON
KEYSEL0
AUSEL_A0
AUSEL_A1
AUSEL_B0
AUSEL_B1
MASTERCLK
72 TO(2/
INSEL_A
INSEL_B
SDC
SV
IC707
SELECTOR
IC707 (1/4) MC74HC00AF
IC707 (2/4) MC74HC00AF
IC707 (3/4) MC74HC00AF
IC707 (4/4) MC74HC00AF
IC709
IC709 M6M80021FP
IC710
IC710 M6M80021FP
EEROM
SETTING DATA
TUNNING DATA
EFFECT DATA
IC708
IC708 MAX232CWE
RS232C DRIVER&RECEIVER
VISCA INTERFACE
GPI INTERFACE
IC712
IC713
IC713 (2/2) MC74HC74AF


9
20
21
22
23
24
25
26
C728 10 16V
R758 4700
R759 1k
FB763
FB764
FB765
FB766
PSW PW0
STBY PW1
PWON PW2
INT PW3
PW 3 TO(1/4)
H:STAND-BY
L:POWER-ON
NEL LED DRIVER
FB717
POWER 103 TO(3/4)
MQ0 MEM_SCK 66
MQ1 MEM_CS 67
MQ2 MEM_BUSY 68
MQ3 CO_RESET 69
MQ4 WIP_SCK 70
MQ5 WIP_CS 71
GA_CS
TO (2/4)
BUS0 56
BUS1 57
BUS2 58
BUS3 59
BUS4 60
BUS5 61
BUS6 62
BUS7 63
R768 4700
BLA 39
BLB 40
R769 4700
TO (2/4)
SDCO 101 TO(3/4)
FB767 FB768
C767 100p CH
WIPEON 64
R745 10k
R747 10k
TO(2/4)
FB769 FB770
KEYSEL0 97
C768 100p CH
R744 10k
R746 10k
R748 10k
SDC1 SDC2 SDC3 SV1 SV2 SV3
CL797 CL798 CL799 CL800
A0 AUSEL_A0 104
A1 AUSEL_A1 105
B0 AUSEL_B0 106
B1 AUSEL_B1 107
TO (3/4)
FB771 FB772 C769 100p CH
FB773 FB774 C770 100p CH
FB775 FB776 C771 100p CH
FB777 FB778 C772 100p CH
MASTERCLK 72 TO(2/4)
S0 S1 S2 S3 S4
FB779 FB780 C773 100p CH
FB781 FB782 C774 100p CH
FB783 FB784 C775 100p CH
FB785 FB786 C776 100p CH
FB787 FB788 C777 100p CH
INSEL_A 7
INSEL_B
FB789 FB790 C778 100p CH
FB791 FB792 C779 100p CH
FB793 FB794 C780 100p CH
FB795 FB796 C781 100p CH
FB797 FB798 C782 100p CH
INSEL_B 8
TO (1/4)
SDC1 SDC2 SDC3
FB799 FB800 C783 100p CH
FB801 FB802 C784 100p CH
FB803 FB804 C785 100p CH
SDC 5
SV1 SV2 SV3
FB805 FB806 C786 100p CH
FB807 FB808 C787 100p CH
FB809 FB810 C788 100p CH
SV 4
R764 10k
R765 10k
R766 10k
C726 25V F

DV-11 BOARD -B SIDE-

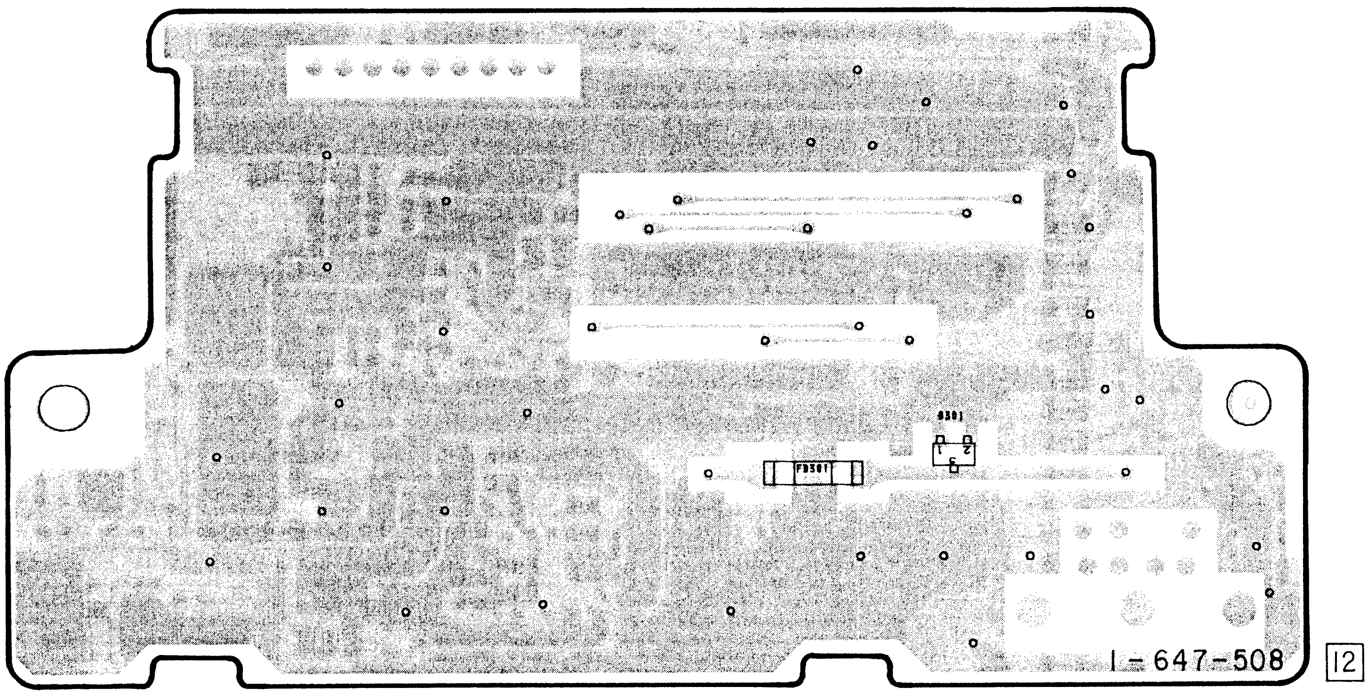

A
B
C
D
E
F
G
H
I
J
K
L
1
2
3
4
5
6
7
8
37
39
CN201
CN101
IC314


CN202
CN102
1-647-466

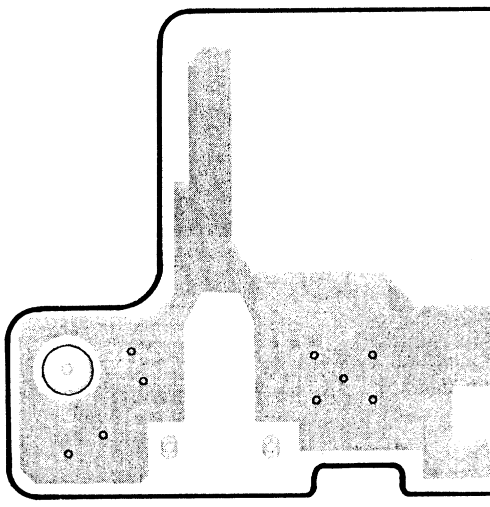
CT-48 (CONTROL TERMINAL), VJ-11 (JACK) SCHEMATIC DIAGRAM/PRINTED WIRING BOARD

– Ref No. CT-48 BOARD : 3,000 Series, VJ-11 BOARD : 1,000 Series –

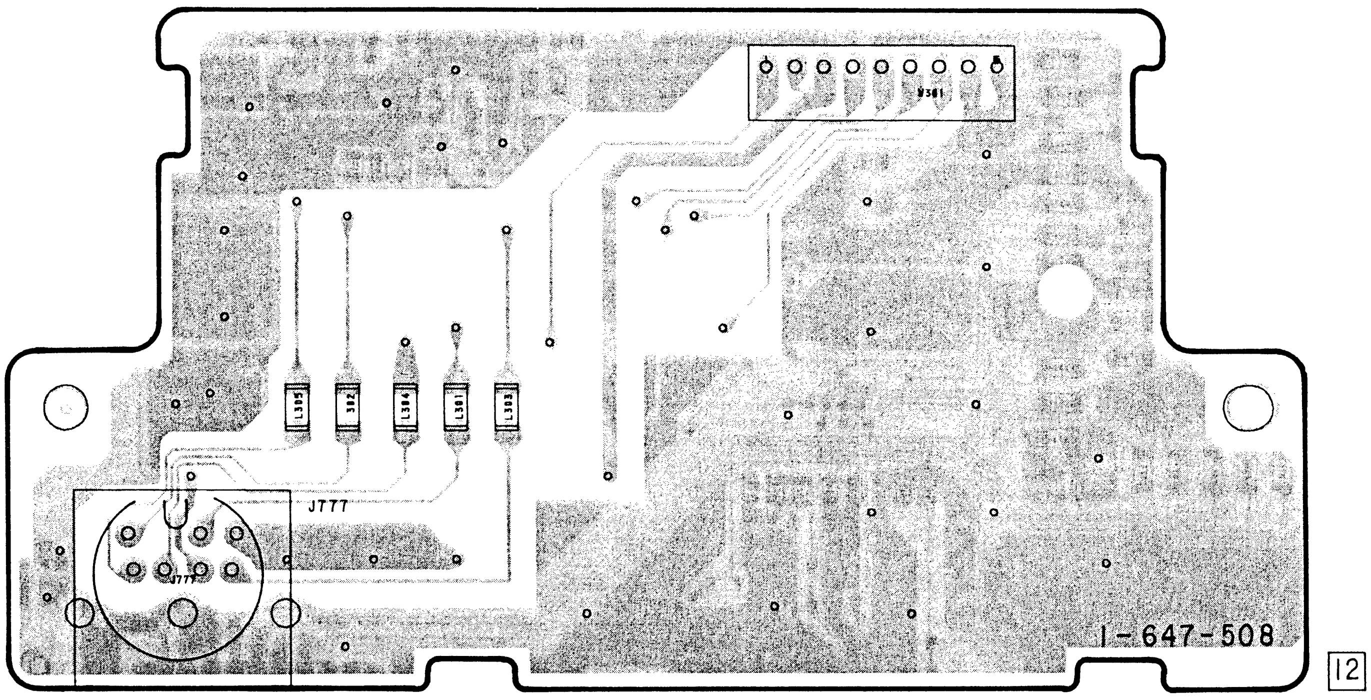
CT-48 BOARD -A SIDE-


FB301
Q301
1-647-508
12

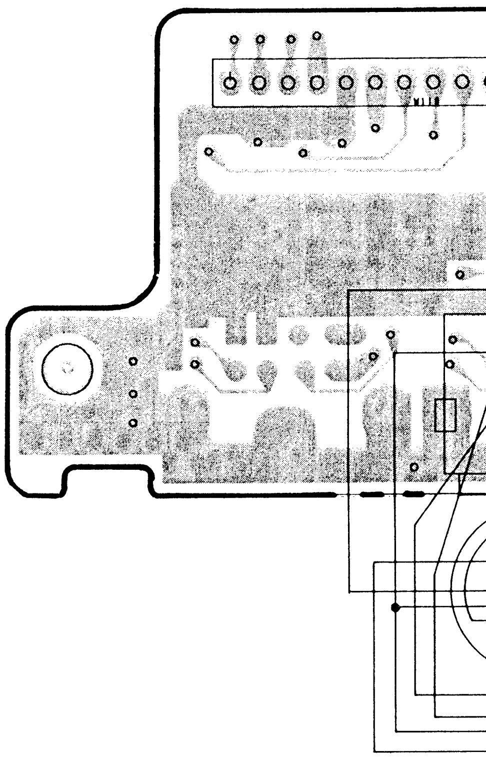
VJ-11 BOARD



CT-48 BOARD -B SIDE-

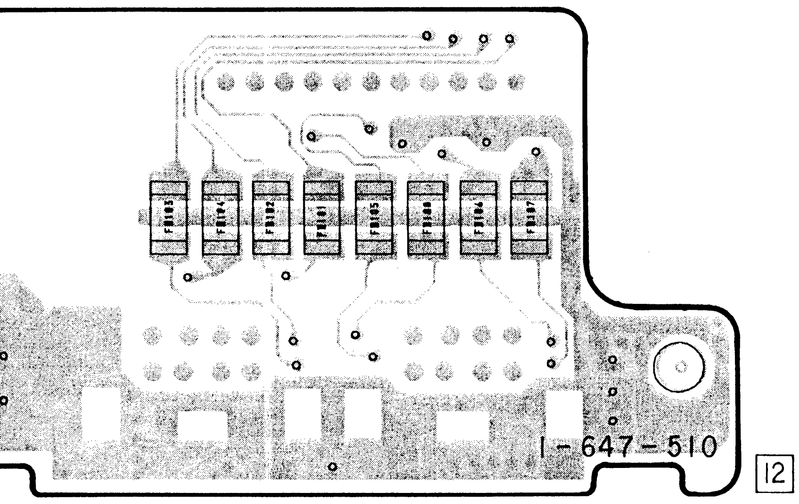

W301
L305
L302
L304
L301
L303
J777
1-647-508
12

VJ-11 BOARD

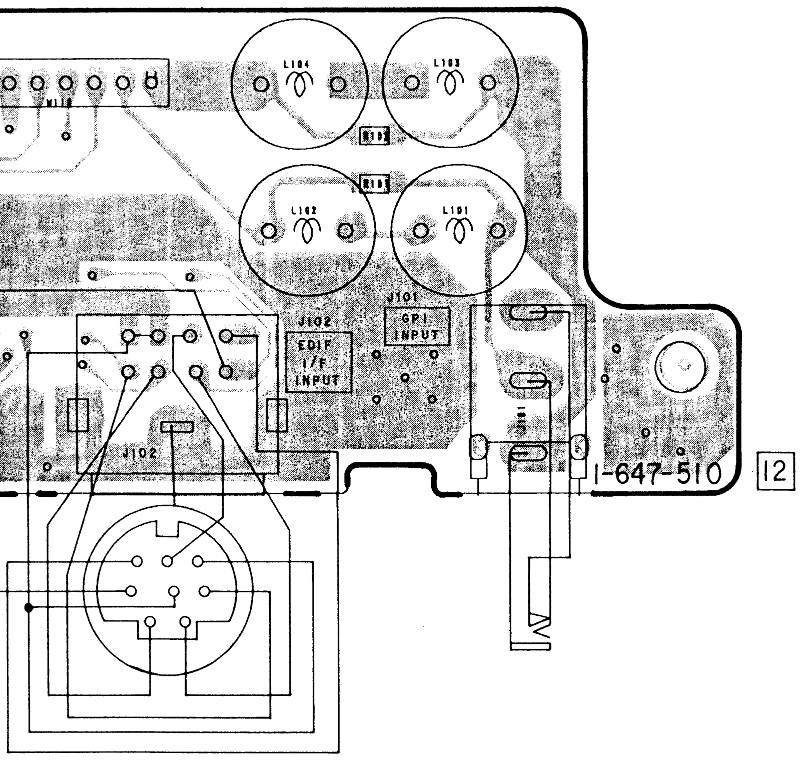


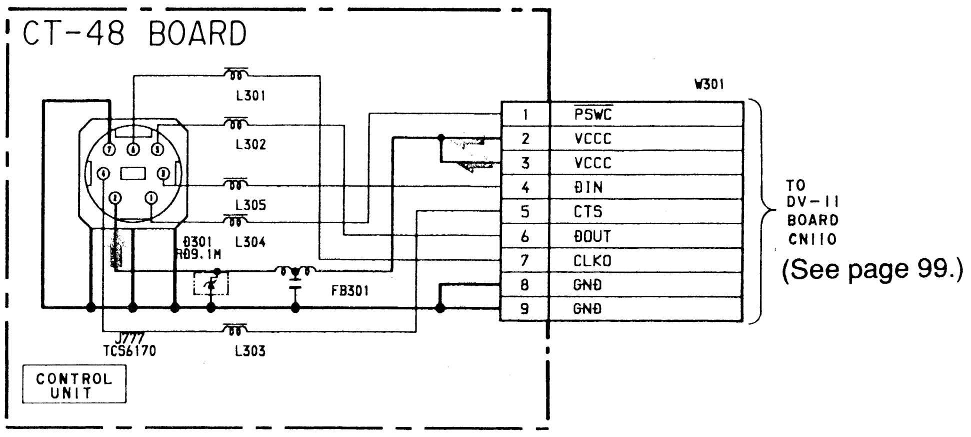
16

BOARD -A SIDE-

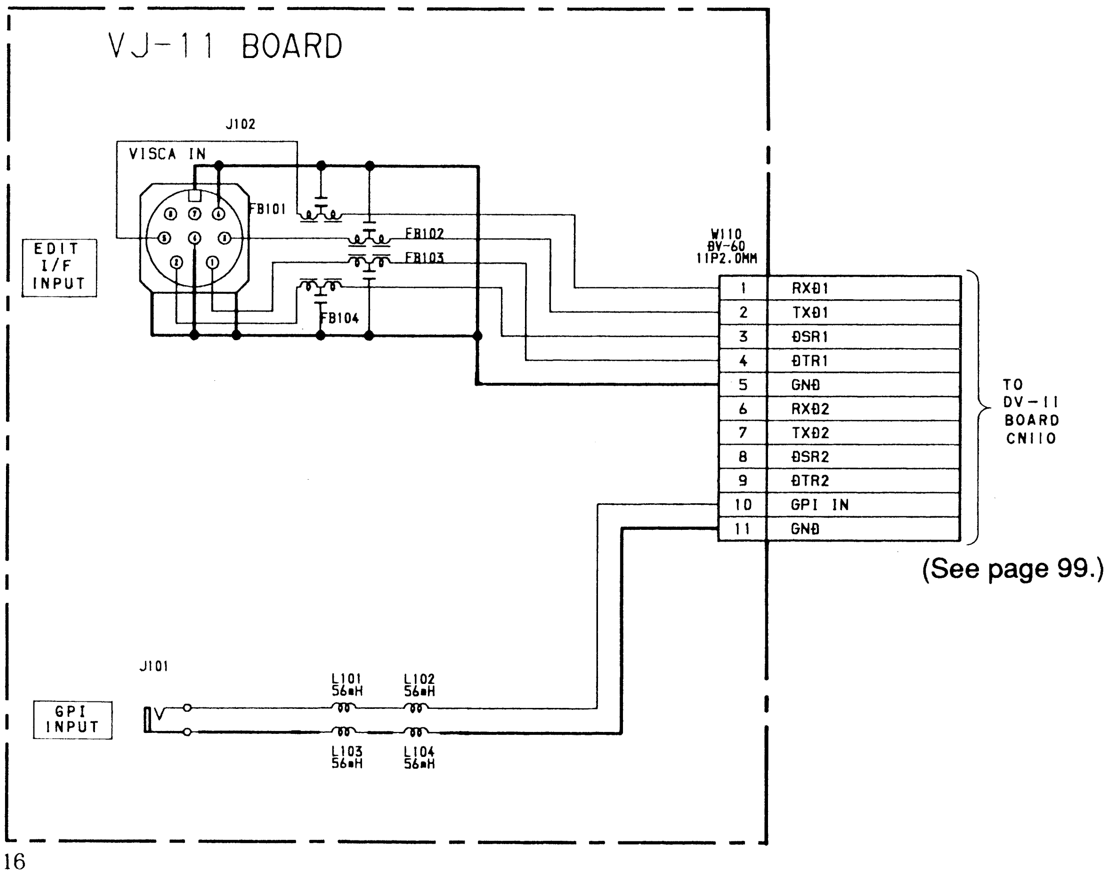

FB103
FB104
FB102
FB101
FB105
FB106
FB104
FB107
1-647-510
12

BOARD -B SIDE-


L104
L103
W110
R102
R101
L102
L101
J102
EDIF I/F INPUT
J101
GPI INPUT
J102
1-647-510
12


CT-48 BOARD
L301
L302
L305
L304
D301
RD9.1M
FB301
J777
TCS6170
L303
CONTROL UNIT
W301
1 PSWC
2 VCCC
3 VCCC
4 DIN
5 CTS
6 DOUT
7 CLKO
8 GND
9 GND
TO DV-11 BOARD CN110

(See page 99.)


VJ-11 BOARD
J102
VISCA IN
FB101
FB102
FB103
FB104
EDIT I/F INPUT
W110
BV-60
11P2.0MM
1 RXD1
2 TXD1
3 DSR1
4 DTR1
5 GND
6 RXD2
7 TXD2
8 DSR2
9 DTR2
10 GPI IN
11 GND
TO DV-11 BOARD CN110
J101
GPI INPUT
L101 56mH
L102 56mH
L103 56mH
L104 56mH

(See page 99.)

16

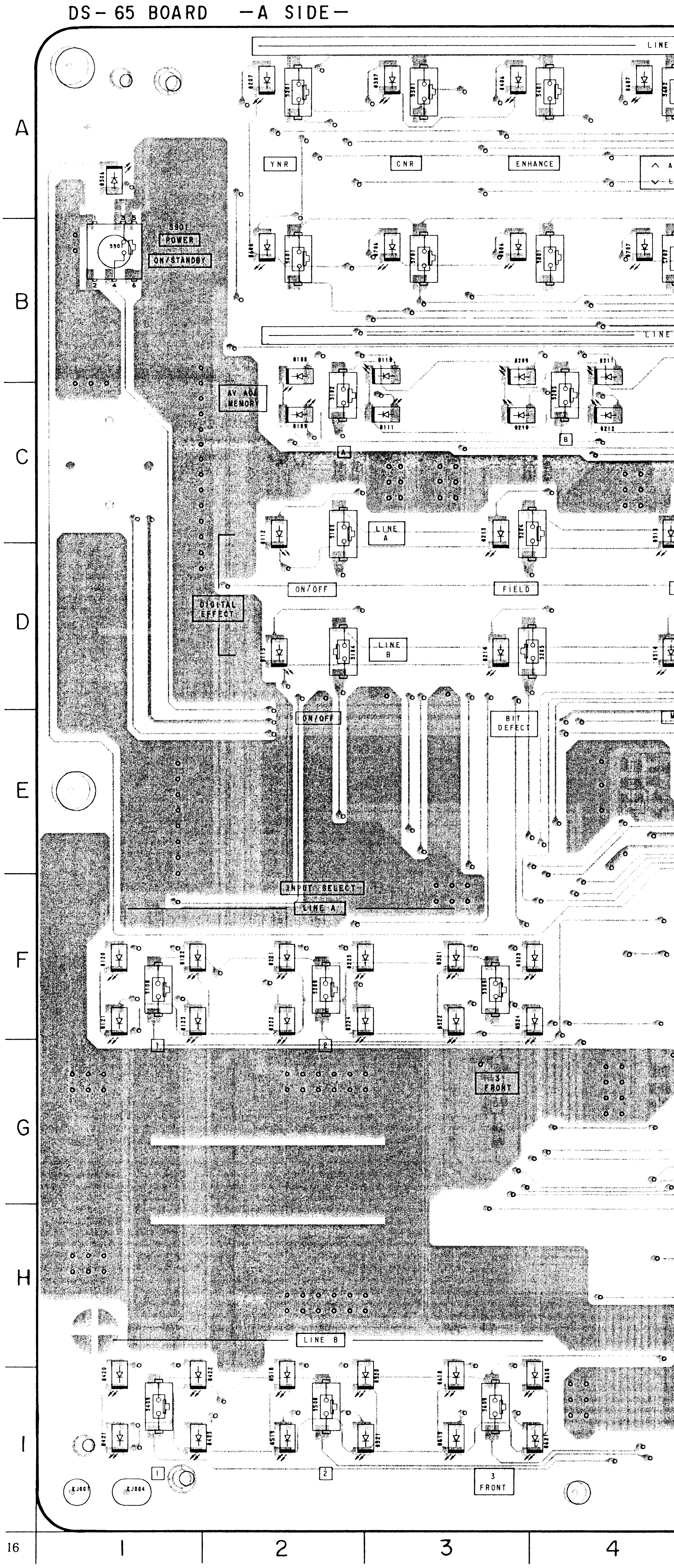
DS-65 (CONTROL) PRINTED WIRING BOARD

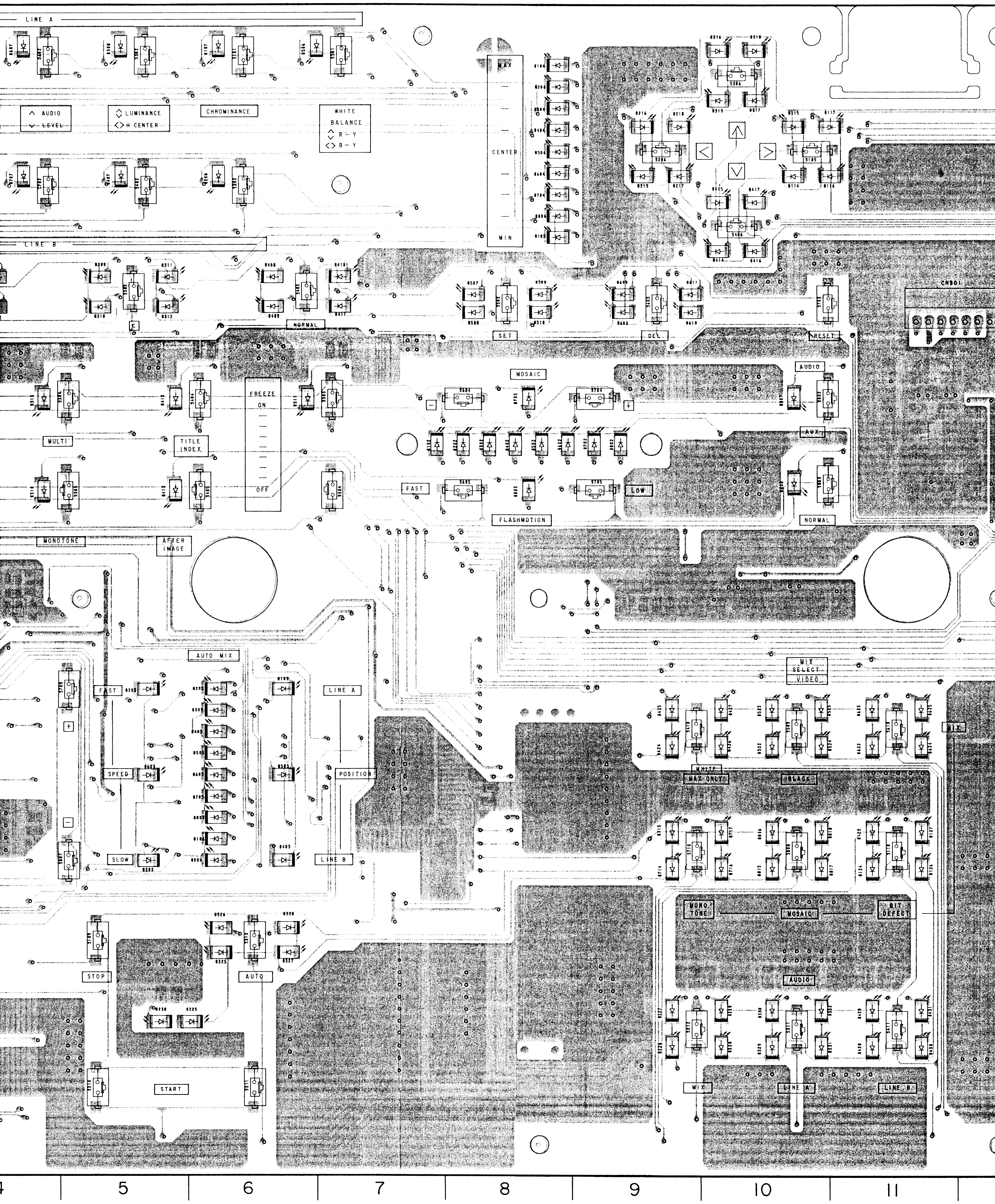
– Ref No. DS-65 BOARD : 6,000 Series –

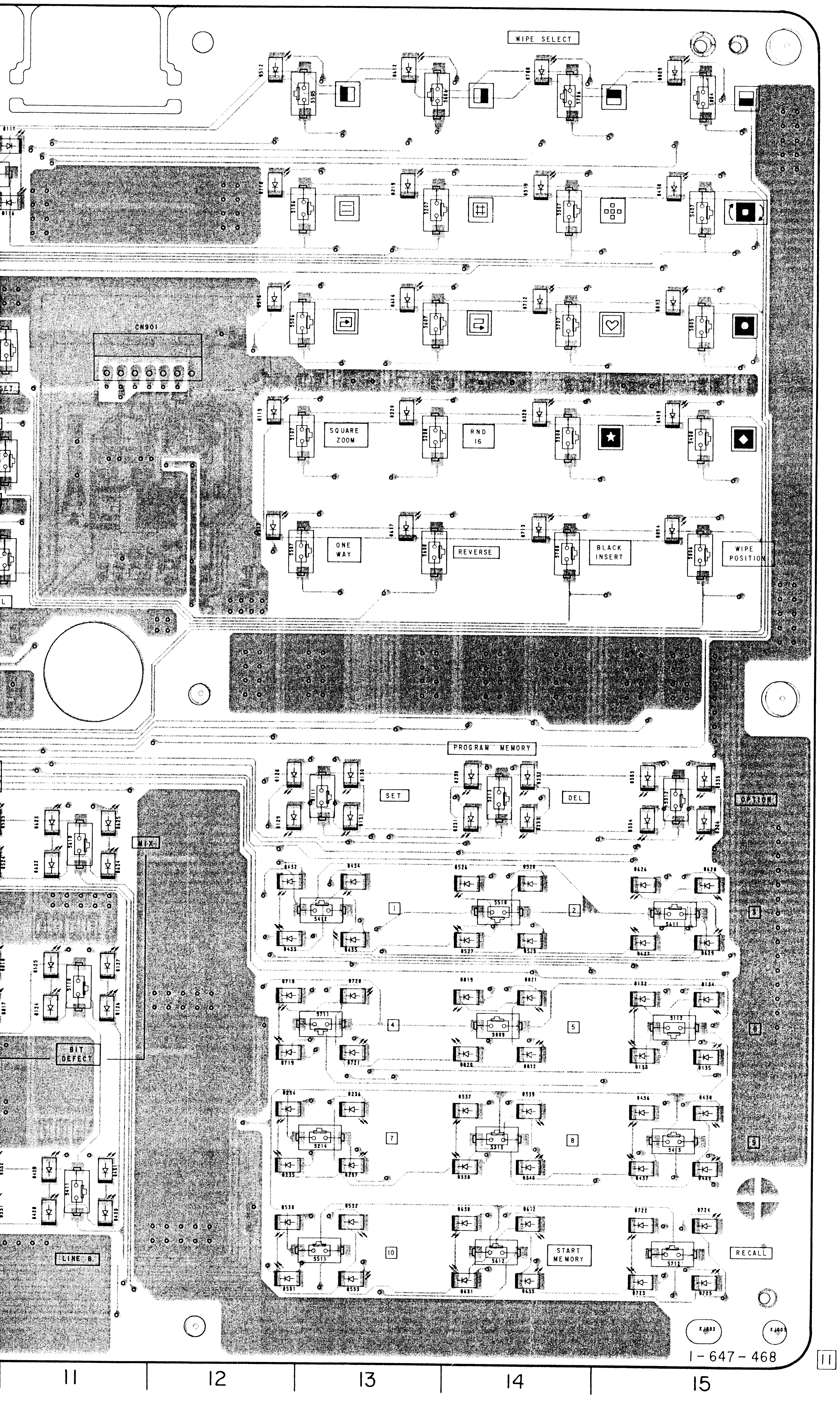
DS-65 BOARD (1/2)

CN901	C-11 (A)
D101	F-12 (B)
D102	D-7 (A)
D103	F-6 (A)
D104	A-8 (A)
D105	B-8 (A)
D106	G-6 (A)
D107	A-6 (A)
D108	B-2 (A)
D109	C-2 (A)
D110	B-3 (A)
D111	C-3 (A)
D112	C-2 (A)
D113	D-2 (A)
D114	B-10 (A)
D115	A-10 (A)
D116	B-11 (A)
D117	A-11 (A)
D118	B-12 (A)
D119	C-12 (A)
D120	F-1 (A)
D121	F-1 (A)
D122	F-1 (A)
D123	F-1 (A)
D124	G-11 (A)
D125	G-11 (A)
D126	G-11 (A)
D127	G-11 (A)
D128	F-12 (A)
D129	F-12 (A)
D130	F-13 (A)
D131	F-13 (A)
D132	G-15 (A)
D133	G-15 (A)
D134	G-15 (A)
D135	G-15 (A)
D201	F-12 (B)
D202	D-8 (A)
D203	F-5 (A)
D204	A-8 (A)
D205	F-6 (A)
D206	G-6 (A)
D207	A-2 (A)
D208	B-6 (A)
D209	B-3 (A)
D210	C-3 (A)
D211	B-4 (A)
D212	C-4 (A)
D213	C-3 (A)
D214	D-3 (A)
D215	B-9 (A)
D216	A-9 (A)
D217	B-9 (A)
D218	A-9 (A)
D219	B-13 (A)
D220	C-13 (A)
D221	F-2 (A)
D222	F-2 (A)
D223	F-2 (A)
D224	F-2 (A)
D225	H-6 (A)
D226	H-9 (A)
D227	H-9 (A)
D228	H-10 (A)
D229	H-10 (A)
D230	F-14 (A)
D231	F-14 (A)
D232	F-14 (A)
D233	F-14 (A)
D234	H-12 (A)
D235	H-12 (A)
D236	H-13 (A)
D237	H-13 (A)
D238	H-5 (A)
D301	G-12 (B)
D302	D-8 (A)
D303	G-5 (A)
D304	A-8 (A)
D305	F-6 (A)
D306	A-1 (A)
D307	A-3 (A)
D308	A-5 (A)
D309	B-5 (A)
D310	C-5 (A)
D311	B-5 (A)
D312	C-5 (A)
D313	C-4 (A)
D314	D-4 (A)
D315	A-10 (A)
D316	A-10 (A)
D317	A-10 (A)
D318	A-10 (A)
D319	B-14 (A)
D320	C-14 (A)
D321	F-3 (A)
D322	F-3 (A)
D323	F-3 (A)
D324	F-3 (A)
D325	H-6 (A)
D326	H-6 (A)
D327	H-6 (A)
D328	H-6 (A)
D329	H-10 (A)
D330	H-10 (A)
D331	H-10 (A)
D332	H-10 (A)
D333	F-15 (A)
D334	F-15 (A)
D335	F-15 (A)
D336	F-15 (A)
D337	H-14 (A)
D338	H-14 (A)
D339	H-14 (A)
D340	H-14 (A)
D401	G-12 (B)
D402	D-8 (A)
D403	G-6 (A)
D404	A-8 (A)
D405	F-6 (A)
D406	A-3 (A)
D407	B-5 (A)
D408	B-6 (A)
D409	C-6 (A)
D410	B-7 (A)
D411	C-7 (A)
D412	C-5 (A)
D413	D-5 (A)
D414	B-10 (A)
D415	B-10 (A)
D416	B-10 (A)
D417	B-10 (A)
D418	B-15 (A)
D419	C-15 (A)
D420	I-1 (A)
D421	I-1 (A)
D422	I-1 (A)
D423	I-1 (A)
D424	F-9 (A)
D425	F-9 (A)
D426	F-10 (A)
D427	F-10 (A)
D428	H-11 (A)
D429	H-11 (A)
D430	H-11 (A)
D431	H-11 (A)
D432	F-12 (A)
D433	G-12 (A)
D434	F-13 (A)
D435	G-13 (A)
D436	H-15 (A)
D437	H-15 (A)
D438	H-15 (A)
D439	H-15 (A)
D501	F-12 (B)
D502	D-8 (A)
D503	F-6 (A)
D504	A-8 (A)
D505	F-6 (A)
D506	A-7 (A)
D507	C-8 (A)
D508	C-8 (A)
D509	C-8 (A)
D510	C-8 (A)
D511	C-6 (A)
D512	A-12 (A)
D516	B-12 (A)
D517	D-12 (A)
D518	I-2 (A)
D519	I-2 (A)
D520	I-3 (A)
D521	I-3 (A)
D522	F-10 (A)
D523	F-10 (A)
D524	F-10 (A)
D525	F-10 (A)
D526	F-14 (A)
D527	G-14 (A)
D528	F-14 (A)
D529	G-14 (A)
D530	I-12 (A)
D531	I-12 (A)
D532	I-13 (A)
D533	I-13 (A)
D601	F-12 (B)
D602	D-8 (A)
D603	F-5 (A)
D604	B-8 (A)
D605	F-6 (A)
D606	B-2 (A)
D607	A-4 (A)
D608	C-9 (A)
D609	C-9 (A)
D610	C-9 (A)
D611	C-9 (A)
D612	A-13 (A)
D616	B-13 (A)
D617	D-13 (A)
D618	I-3 (A)
D619	I-3 (A)
D620	I-4 (A)
D621	I-4 (A)
D622	F-11 (A)
D623	F-11 (A)
D624	F-11 (A)
D625	F-11 (A)
D626	F-15 (A)
D627	G-15 (A)
D628	F-15 (A)
D629	G-15 (A)
D630	I-14 (A)
D631	I-14 (A)
D632	I-14 (A)
D633	I-14 (A)
D701	E-12 (B)
D702	D-9 (A)
D703	C-8 (A)
D704	B-8 (A)
D705	G-6 (A)
D706	B-3 (A)
D707	B-4 (A)
D708	A-14 (A)
D712	B-14 (A)
D713	D-14 (A)
D714	G-9 (A)
D715	G-9 (A)
D716	G-10 (A)
D717	G-10 (A)
D718	G-12 (A)
D719	G-12 (A)
D720	G-13 (A)
D721	G-13 (A)
D722	I-15 (A)
D723	I-15 (A)
D724	I-15 (A)
D725	I-15 (A)
D801	E-12 (B)
D802	D-9 (A)
D803	D-8 (A)
D804	B-8 (A)
D805	G-6 (A)
D806	B-3 (A)
D807	C-10 (A)
D808	D-10 (A)
D809	A-15 (A)
D813	B-15 (A)
D814	D-15 (A)
D815	G-10 (A)
D816	G-10 (A)
D817	G-10 (A)
D818	G-10 (A)
D819	G-14 (A)
D820	G-14 (A)
D821	G-14 (A)
D822	G-14 (A)
D901	D-5 (A)
D902	E-6 (B)
D903	D-5 (B)
D904	E-6 (B)
D905	D-5 (B)
D910	D-5 (B)
D911	E-8 (B)
D912	H-10 (B)
D913	H-9 (B)

(A) and (B) after location No. show the side of printed wiring board.



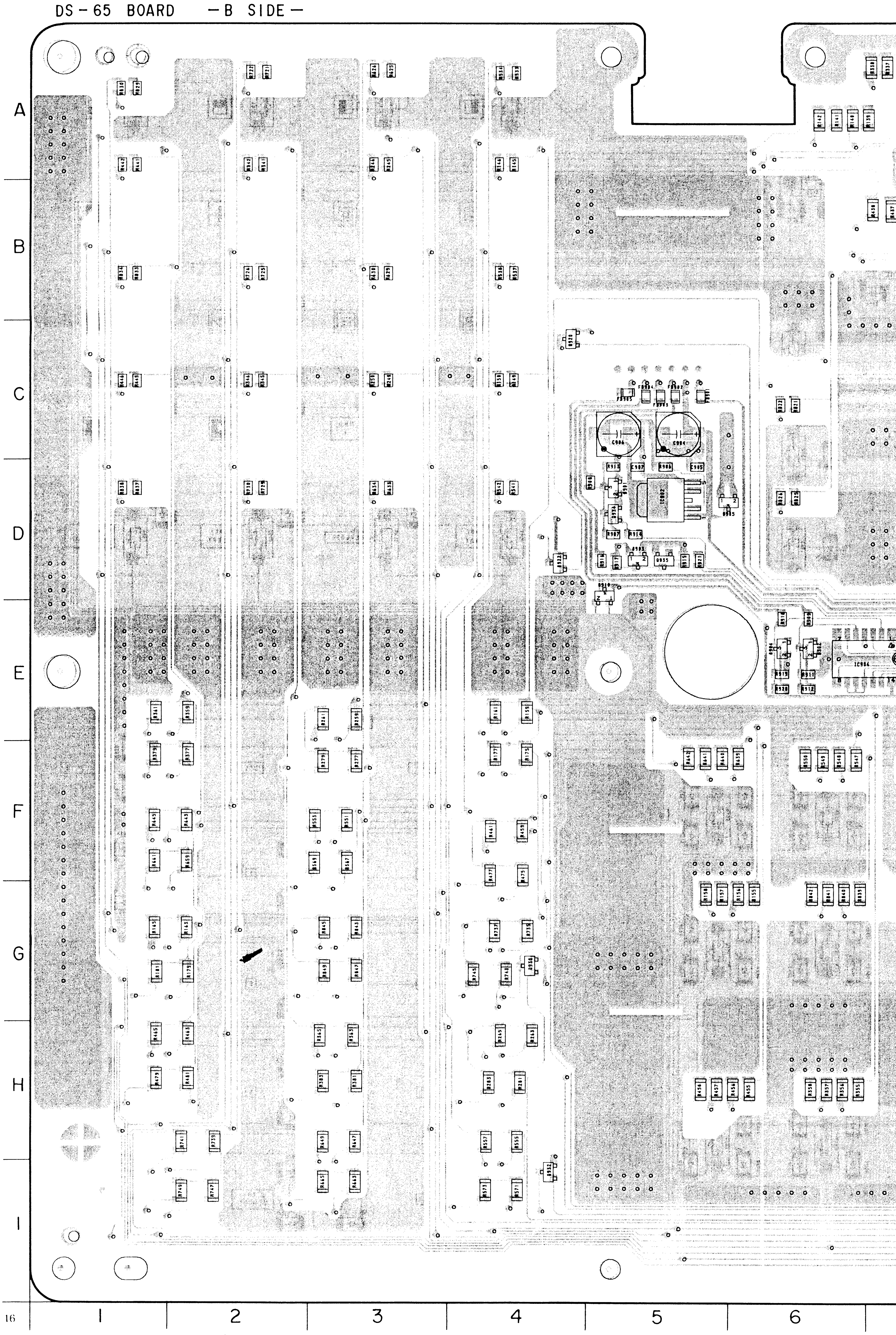

LINE A
AUDIO
LEVEL
LUMINANCE
H CENTER
CHROMINANCE
WHITE
BALANCE
R－Y
B－Y
MAX
CENTER
MIN
LINE B
NORMAL
SET
DEL
RESET
CN801
MOSAIC
AUDIO
FREEZE
ON
OFF
MULTI
TITLE
INDEX
AUX
FAST
LOW
FLASHMOTION
NORMAL
MONOTONE
AFTER
IMAGE
AUTO MIX
FAST
SPEED
SLOW
LINE A
POSITION
LINE B
MIX
SELECT
VIDEO
WHITE
MAX ONLY
BLACK
MIX
MONO
TONE
MOSAIC
BIT
DEFECT
AUDIO
STOP
AUTO
START
MIX
LINE A
LINE B
4
5
6
7
8
9
10
11

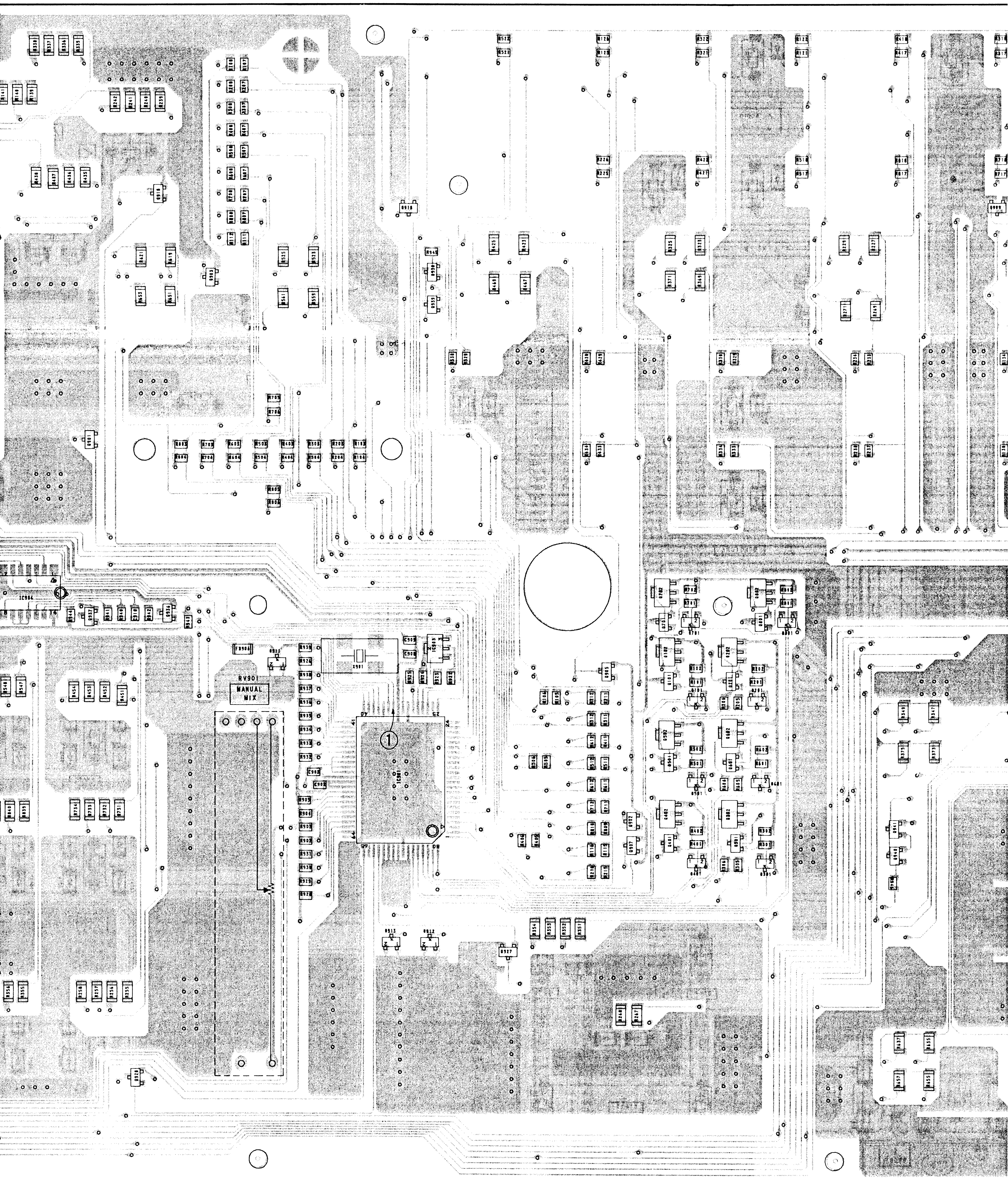

WIPE SELECT
CN901
SET
SQUARE ZOOM
RND 16
ONE WAY
REVERSE
BLACK INSERT
WIPE POSITION
L
PROGRAM MEMORY
SET
DEL
OPTION
MIX
1
2
3
4
5
6
7
8
9
10
BIT DEFECT
START MEMORY
RECALL
LINE B.
1-647-468
11
11
12
13
14
15

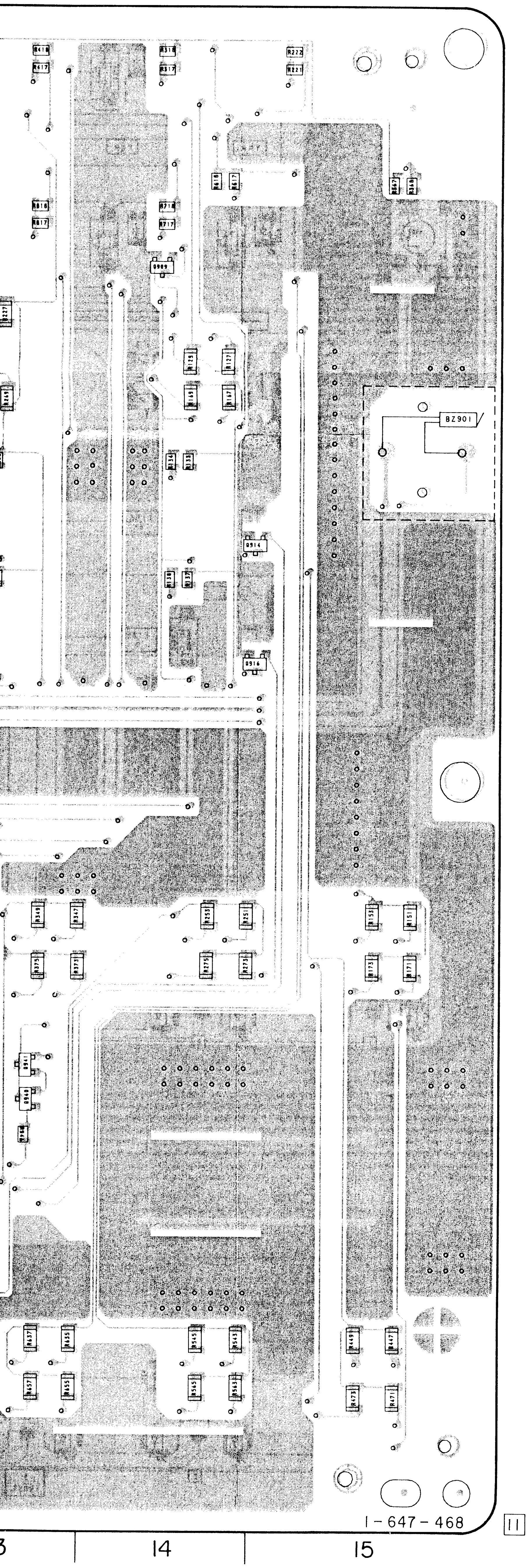
CONTI

DS-65 (CONTROL) PRINTED WIRING BOARD

– Ref No. DS-65 BOARD : 6,000 Series –


DS-65 BOARD -B SIDE-
A
B
C
D
E
F
G
H
I
16
1
2
3
4
5
6
IC902
IC904
C904
C906


RV901
MANUAL
MIX
IC904
X901



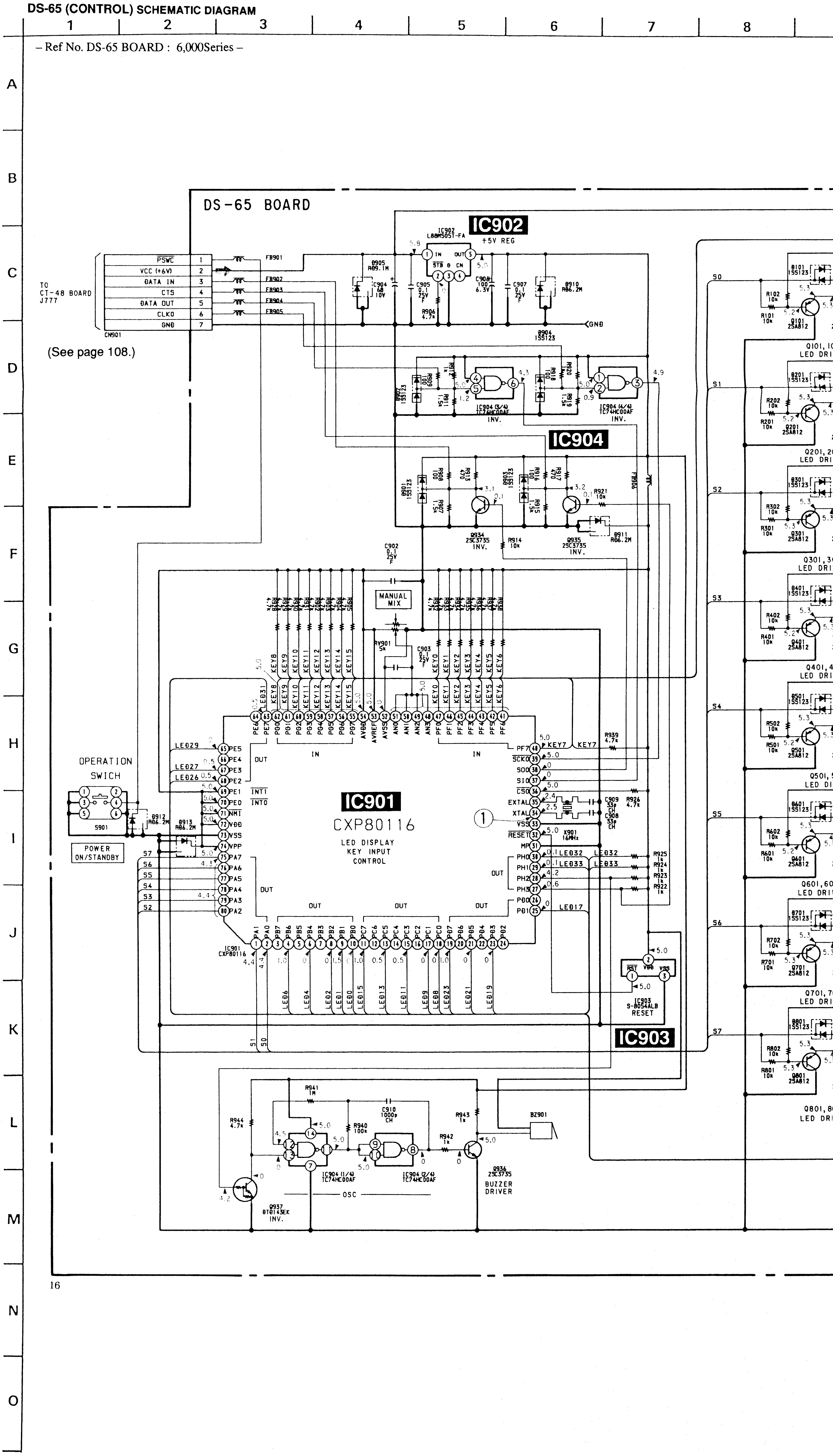
DS-65 BOARD (2/2)

IC901	F-9 (B)
IC902	D-5 (B)
IC903	E-10 (B)
IC904	E-6 (B)
Q101	F-11 (B)
Q102	E-11 (B)
Q201	F-12 (B)
Q202	E-12 (B)
Q301	G-12 (B)
Q302	G-12 (B)
Q401	G-11 (B)
Q402	G-11 (B)
Q501	F-11 (B)
Q502	F-11 (B)
Q601	F-12 (B)
Q602	F-12 (B)
Q701	E-11 (B)
Q702	E-11 (B)
Q801	E-12 (B)
Q802	E-12 (B)
Q901	D-7 (B)
Q902	G-11 (B)
Q903	B-8 (B)
Q905	F-11 (B)
Q907	G-11 (B)
Q909	B-14 (B)
Q910	B-9 (B)
Q914	D-14 (B)
Q916	D-14 (B)
Q918	B-7 (B)
Q920	C-4 (B)
Q922	D-4 (B)
Q927	H-10 (B)
Q928	I-7 (B)
Q930	G-4 (B)
Q932	I-4 (B)
Q934	D-5 (B)
Q935	D-5 (B)
Q936	E-8 (B)
Q937	E-7 (B)
Q938	B-10 (B)
Q939	C-10 (B)
Q940	G-13 (B)
Q941	G-13 (B)
RV901	F-8 (B)

(A) and (B) after location No. show the side of printed wiring board.

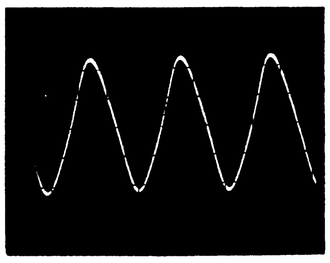
DS-65 (CONTROL) SCHEMATIC DIAGRAM

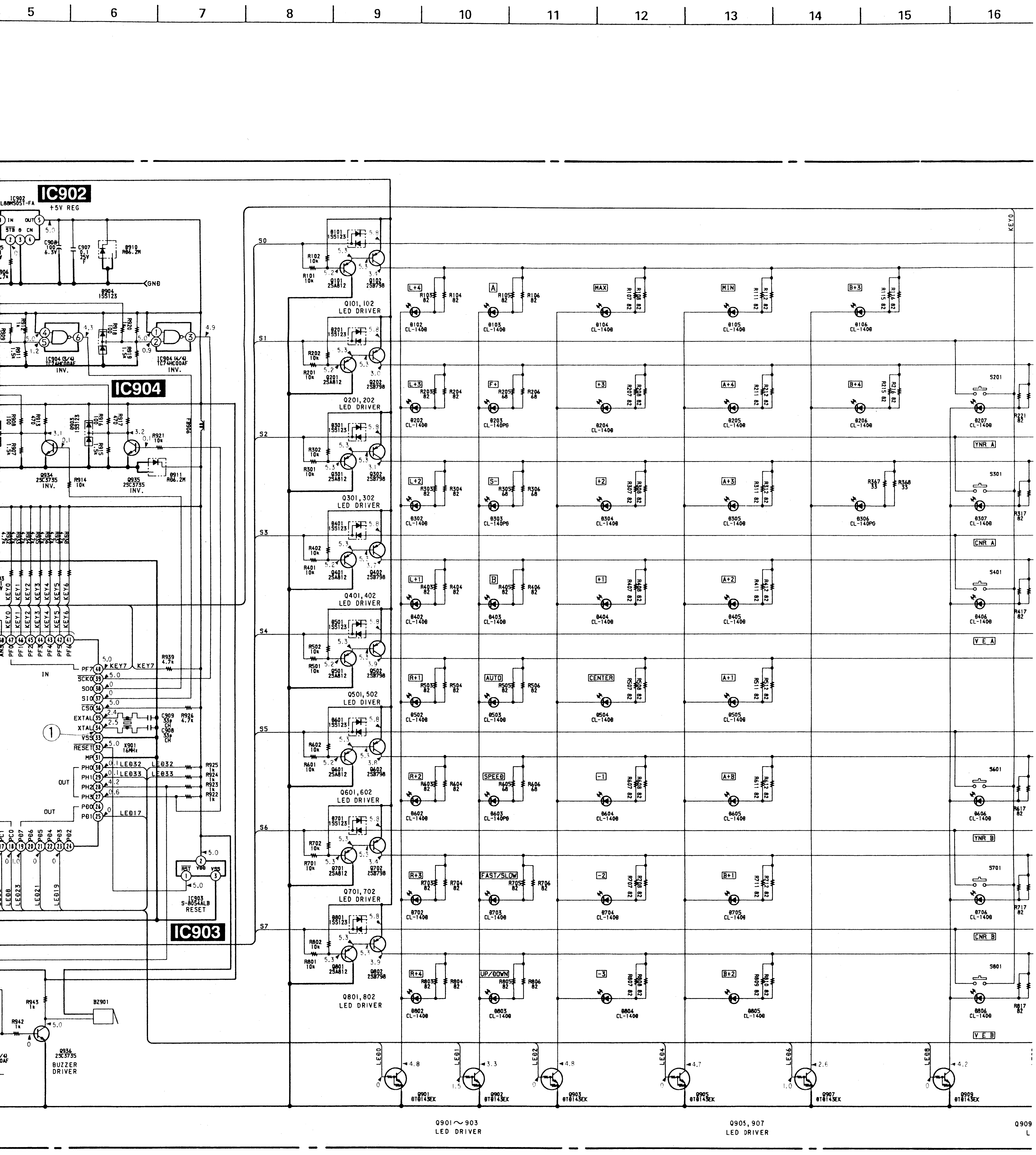
– Ref No. DS-65 BOARD : 6,000Series –


1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
DS-65 BOARD
IC902
L88MS05T-FA
+5V REG
IC904
IC901
CXP80116
LED DISPLAY
KEY INPUT
CONTROL
IC903
S-8054ALB
RESET
TO CT-48 BOARD J777
CN901
PSWC
VCC (+6V)
DATA IN
CTS
DATA OUT
CLKO
GND
(See page 108.)
FB901
FB902
FB903
FB904
FB905
FB906
MANUAL MIX
RV901 5k
OPERATION SWICH
S901
POWER ON/STANDBY
X901 16MHz
Q934 2SC3735 INV.
Q935 2SC3735 INV.
Q936 2SC3735 BUZZER DRIVER
Q937 BT0143EK INV.
BZ901
IC904 (1/4) TC74HC00AF
IC904 (2/4) TC74HC00AF
IC904 (3/4) TC74HC00AF INV.
IC904 (4/4) TC74HC00AF INV.
OSC
Q101, 102 LED DRIVE
Q201, 202 LED DRIVE
Q301, 302 LED DRIVE
Q401, 402 LED DRIVE
Q501, 502 LED DRIVE
Q601, 602 LED DRIVE
Q701, 702 LED DRIVE
Q801, 802 LED DRIVE
S0
S1
S2
S3
S4
S5
S6
S7
16

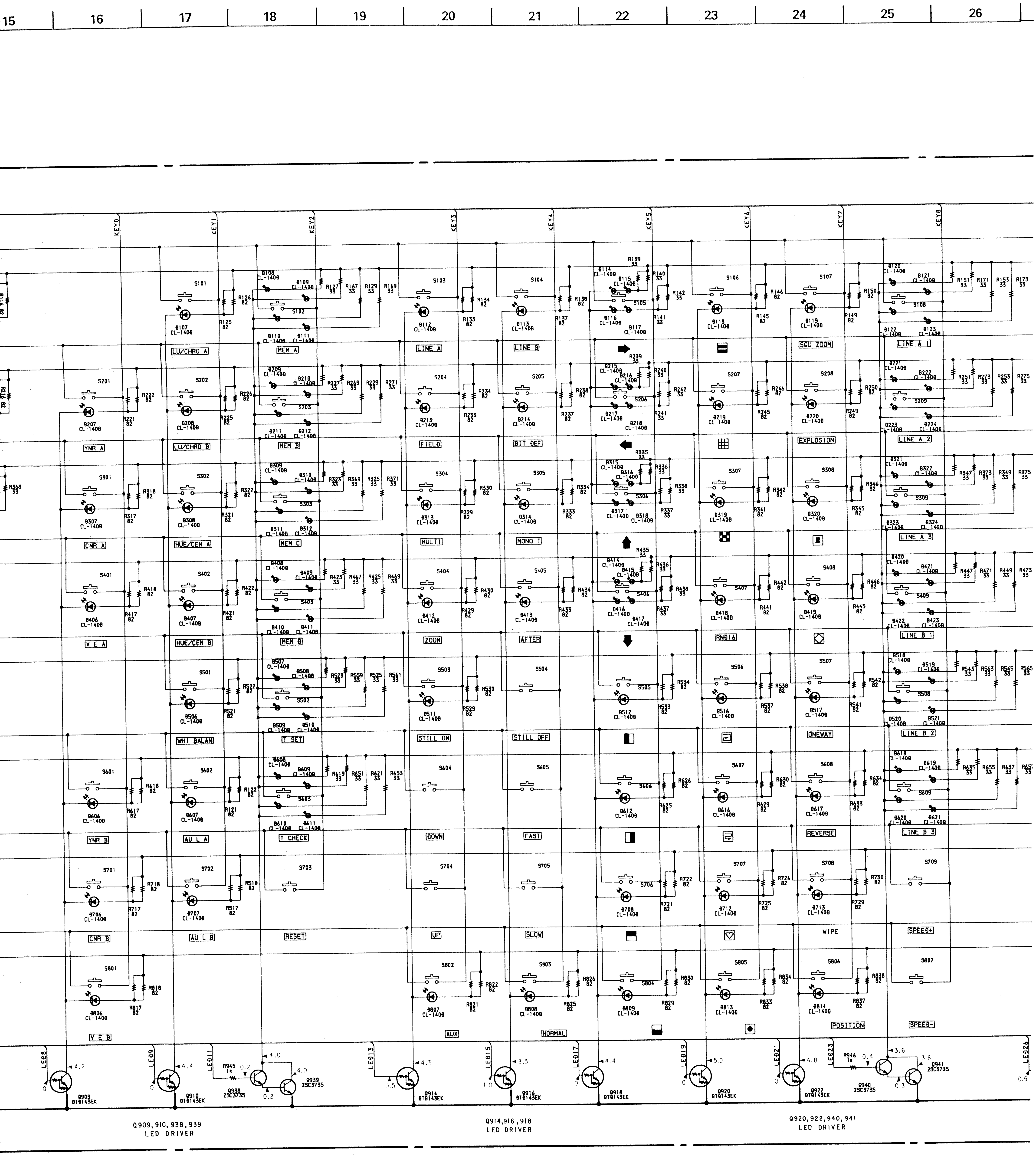
DS-65 BOARD

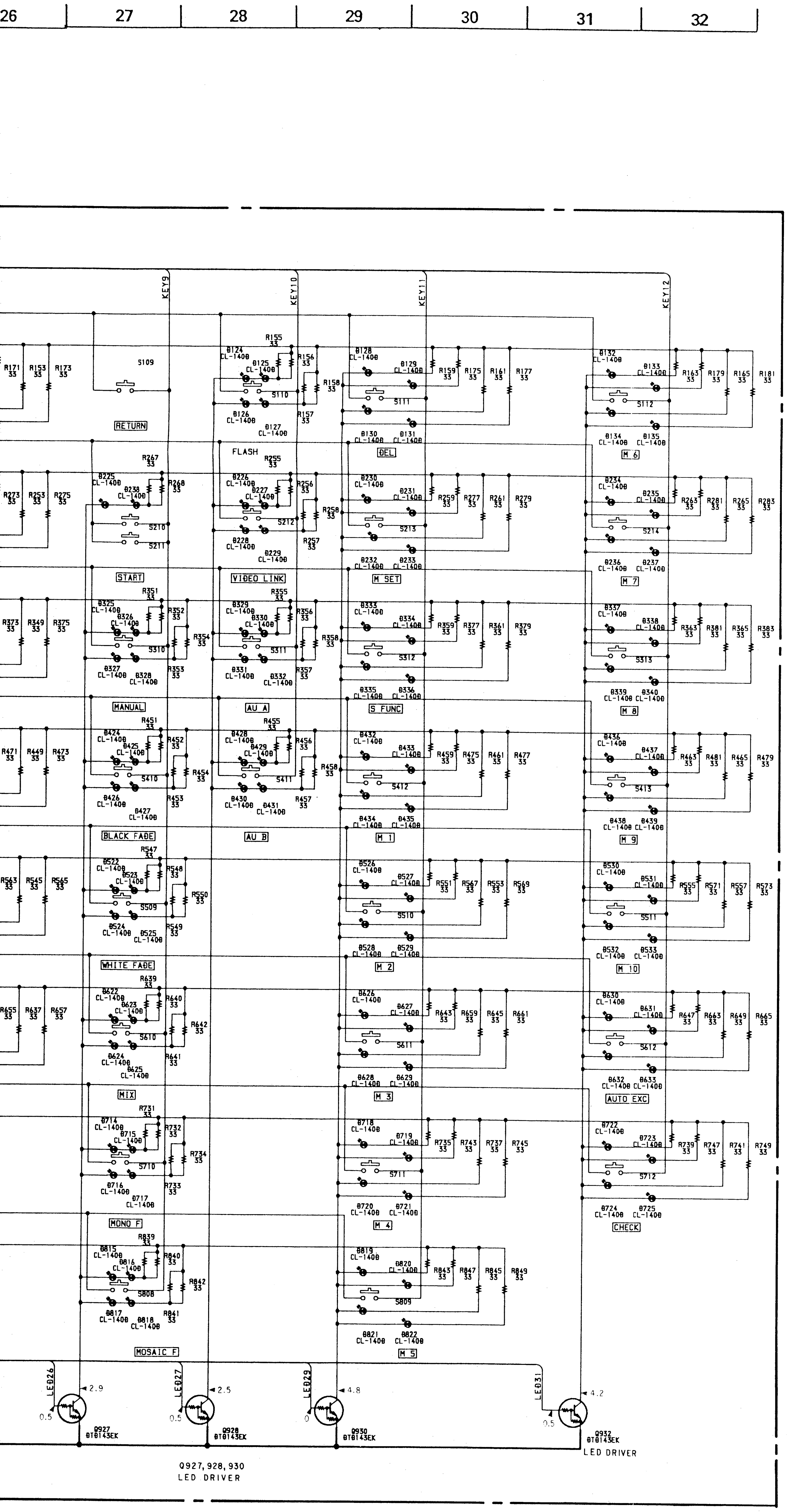
① IC901 ㉞ 1V/0.02μs





5
6
7
8
9
10
11
12
13
14
15
16
IC902
+5V REG
GND
D904 1SS123
IC904 (3/4) TC74HC00AF INV.
IC904 (4/4) TC74HC00AF INV.
IC904
Q934 2SC3735 INV.
Q935 2SC3735 INV.
D911 RD6.2M
D910 RD6.2M
FB906
KEY0
KEY1
KEY2
KEY3
KEY4
KEY5
KEY6
KEY7
IN
PF7
SCK0
SO0
SI0
CS0
EXTAL
XTAL
VSS
RESET
MP
PH0
PH1
PH2
PH3
P00
P01
OUT
X901 16MHz
LE032
LE033
LE017
LE008
LE023
LE021
LE019
IC903 S-8054ALB RESET
IC903
①
BZ901
Q936 2SC3735 BUZZER DRIVER
S0
S1
S2
S3
S4
S5
S6
S7
Q101, 102 LED DRIVER
Q201, 202 LED DRIVER
Q301, 302 LED DRIVER
Q401, 402 LED DRIVER
Q501, 502 LED DIVER
Q601, 602 LED DRIVER
Q701, 702 LED DRIVER
Q801, 802 LED DRIVER
L+4
A
MAX
MIN
B+3
L+3
F+
+3
A+4
B+4
L+2
S-
+2
A+3
L+1
B
+1
A+2
R+1
AUTO
CENTER
A+1
R+2
SPEED
-1
A+B
R+3
FAST/SLOW
-2
B+1
R+4
UP/DOWN
-3
B+2
S201
S301
S401
S601
S701
S801
YNR A
CNR A
V E A
YNR B
CNR B
V E B
KEX0
LE00
LE01
LE02
LE04
LE06
LE08
Q901 DTB143EK
Q902 DTB143EK
Q903 DTB143EK
Q905 DTB143EK
Q907 DTB143EK
Q909 DTB143EK
Q901～903 LED DRIVER
Q905, 907 LED DRIVER
Q909


15
16
17
18
19
20
21
22
23
24
25
26
KEY0
KEY1
KEY2
KEY3
KEY4
KEY5
KEY6
KEY7
KEY8
LU/CHRO A
MEM A
LINE A
LINE B
SQU ZOOM
LINE A 1
YNR A
LU/CHRO B
MEM B
FIELD
BIT DEF
EXPLOSION
LINE A 2
CNR A
HUE/CEN A
MEM C
MULTI
MONO T
LINE A 3
V E A
HUE/CEN B
MEM D
ZOOM
AFTER
RN016
LINE B 1
WHI BALAN
T SET
STILL ON
STILL OFF
ONEWAY
LINE B 2
YNR B
AU L A
T CHECK
DOWN
FAST
REVERSE
LINE B 3
CNR B
AU L B
RESET
UP
SLOW
WIPE
SPEED+
V E B
AUX
NORMAL
POSITION
SPEED-
CL-1408
Q909
Q910
Q938 2SC3735
Q939 2SC3735
Q914 8T8143EK
Q916 8T8143EK
Q918 8T8143EK
Q920 8T8143EK
Q922 8T8143EK
Q940 2SC3735
Q941 2SC3735
R945 1k
R946 1k
Q909, 910, 938, 939
LED DRIVER
Q914, 916, 918
LED DRIVER
Q920, 922, 940, 941
LED DRIVER


26
27
28
29
30
31
32
KEY9
KEY10
KEY11
KEY12
S109
RETURN
FLASH
DEL
M 6
START
VIDEO LINK
M SET
M 7
MANUAL
AU A
S FUNC
M 8
BLACK FADE
AU B
M 1
M 9
WHITE FADE
M 2
M 10
MIX
M 3
AUTO EXC
MONO F
M 4
CHECK
MOSAIC F
M 5
CL-1408
LED026
LED027
LED029
LED031
Q927
DTB143EK
Q928
DTB143EK
Q930
DTB143EK
Q932
DTB143EK
LED DRIVER
Q927, 928, 930
LED DRIVER
2.9
2.5
4.8
4.2
0.5
0.5
0
0.5

POWER SUPPLY BOARD (BLOCK) /PE-14 BOARD PRINTED WIRING BOARD

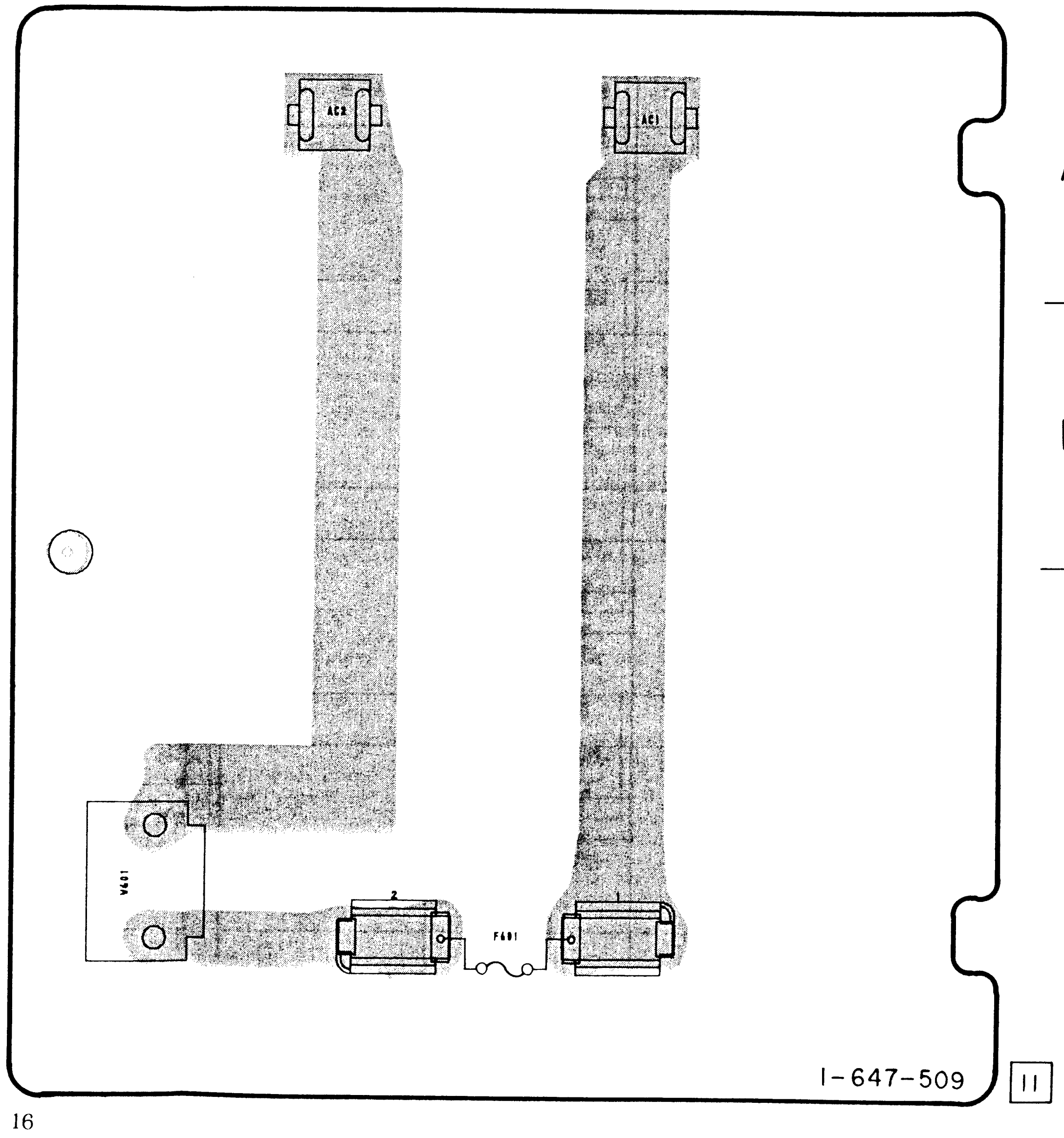
– Ref No. 10,000 Series –

POWER SUPPLY BOARD (BLOCK)

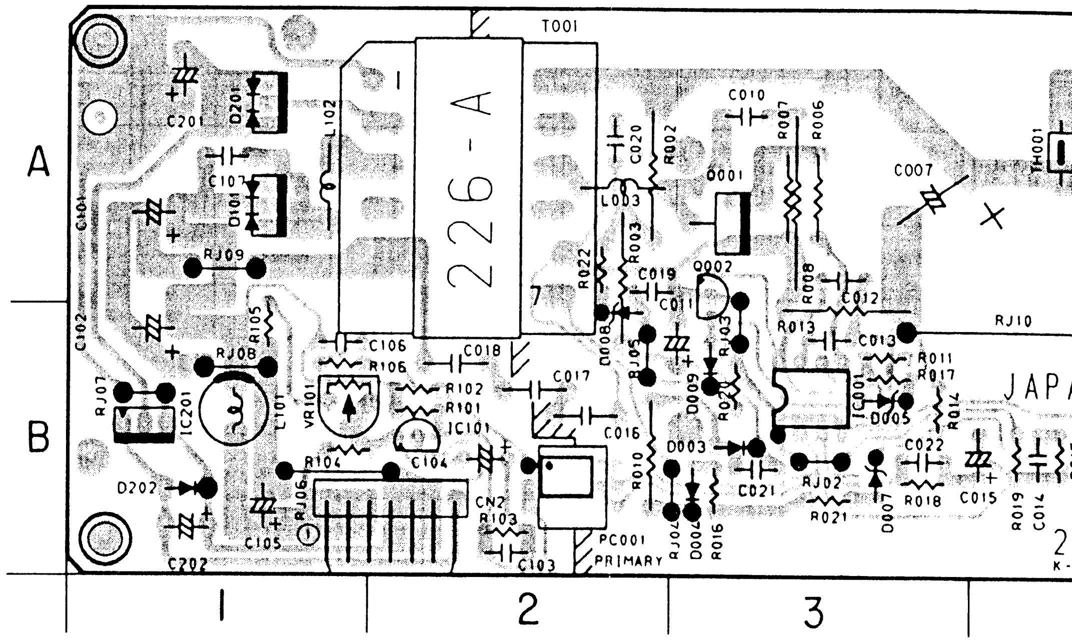
D001	A-4
D202	B-1
D003	B-3
D004	B-3
D009	B-3
D201	A-1
D101	A-1
D008	B-2
D007	B-3
D005	B-3
IC001	B-3
IC101	B-2
IC201	B-1
PC001	B-2
Q001	A-3
Q002	A-3
VR101	B-1
T001	A-2
TH001	A-4
CN1	B-5
CN2	B-2

(A) and (B) after location No. show the side of printed wiring board.

PE-14 BOARD


AC2
AC1
V601
2
F601
1-647-509
11
16

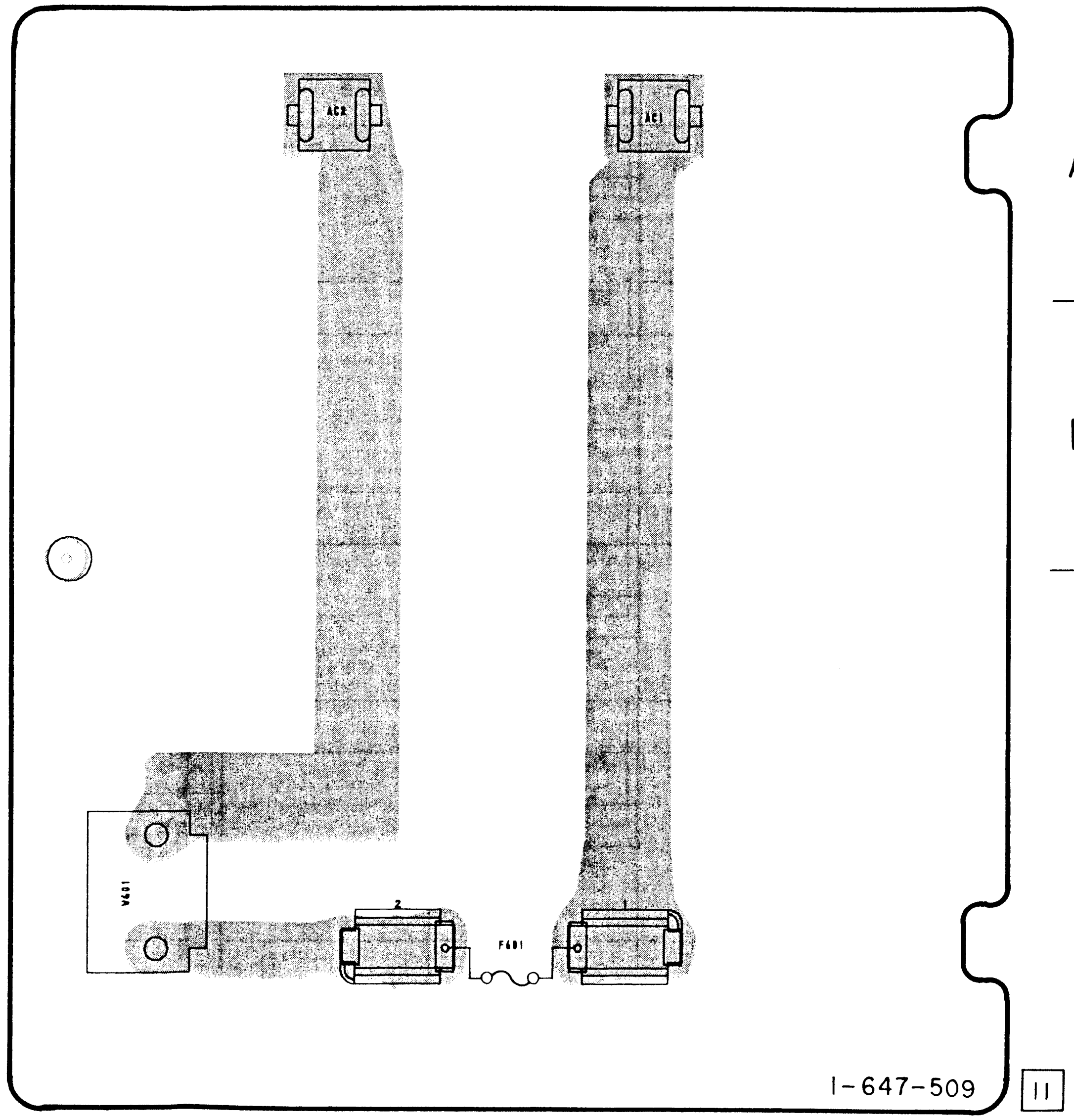
POWER SUPPLY BOARD


T001
226-A
A
B
C201
D201
L102
C101
D101
C102
RJ09
R105
RJ08
RJ07
IC201
L101
VR101
C106
R106
C018
R102
R101
IC101
R104
C104
C017
C016
D202
RJ06
C105
C202
CN2
R103
C103
PC001
PRIMARY
C010
R007
R006
C020
R002
L003
D001
C007
TH001
R003
R022
C019
C011
Q002
R008
C012
D008
R013
C013
R011
R017
RJ10
IC001
D005
R014
JAP
D003
C021
RJ02
R021
C022
R018
C015
D007
R010
D004
R016
R019
C014
1
2
3

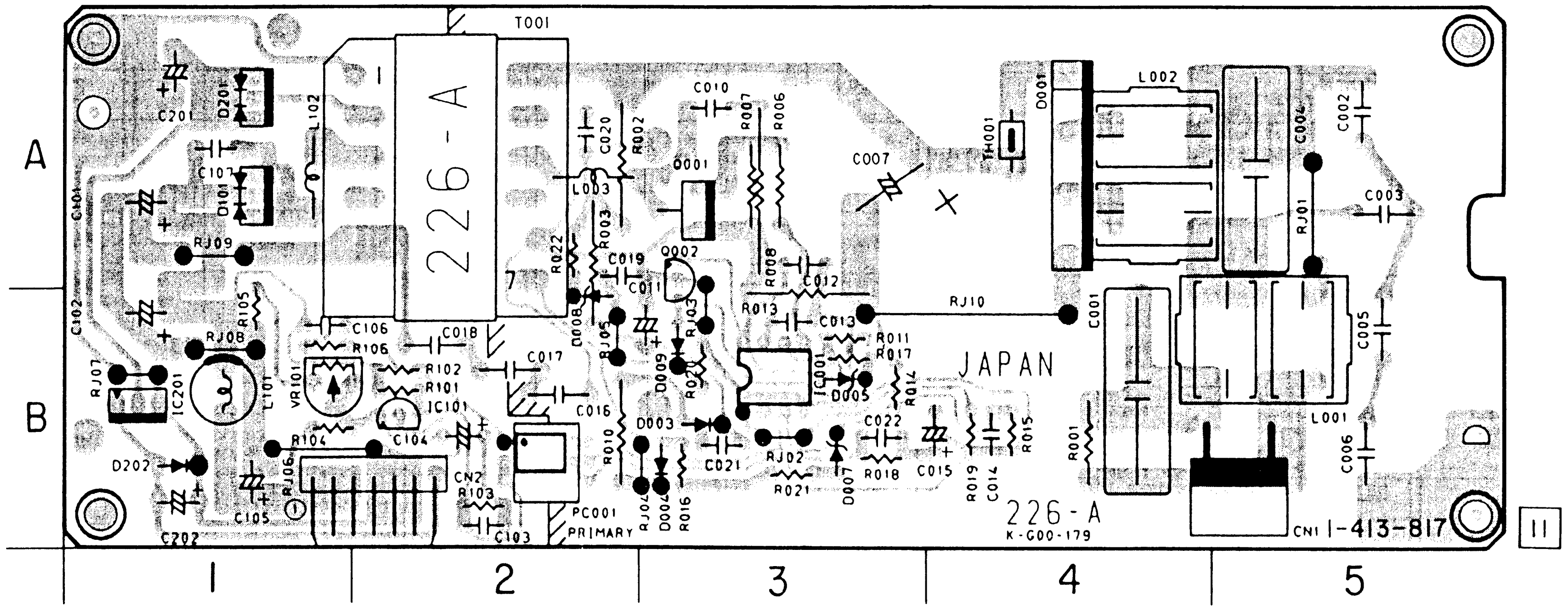
UPPLY BOARD (BLOCK) /PE-14 BOARD PRINTED WIRING BOARD

0,000 Series –

PE-14 BOARD


AC2
AC1
V601
F601
2
1-647-509
11

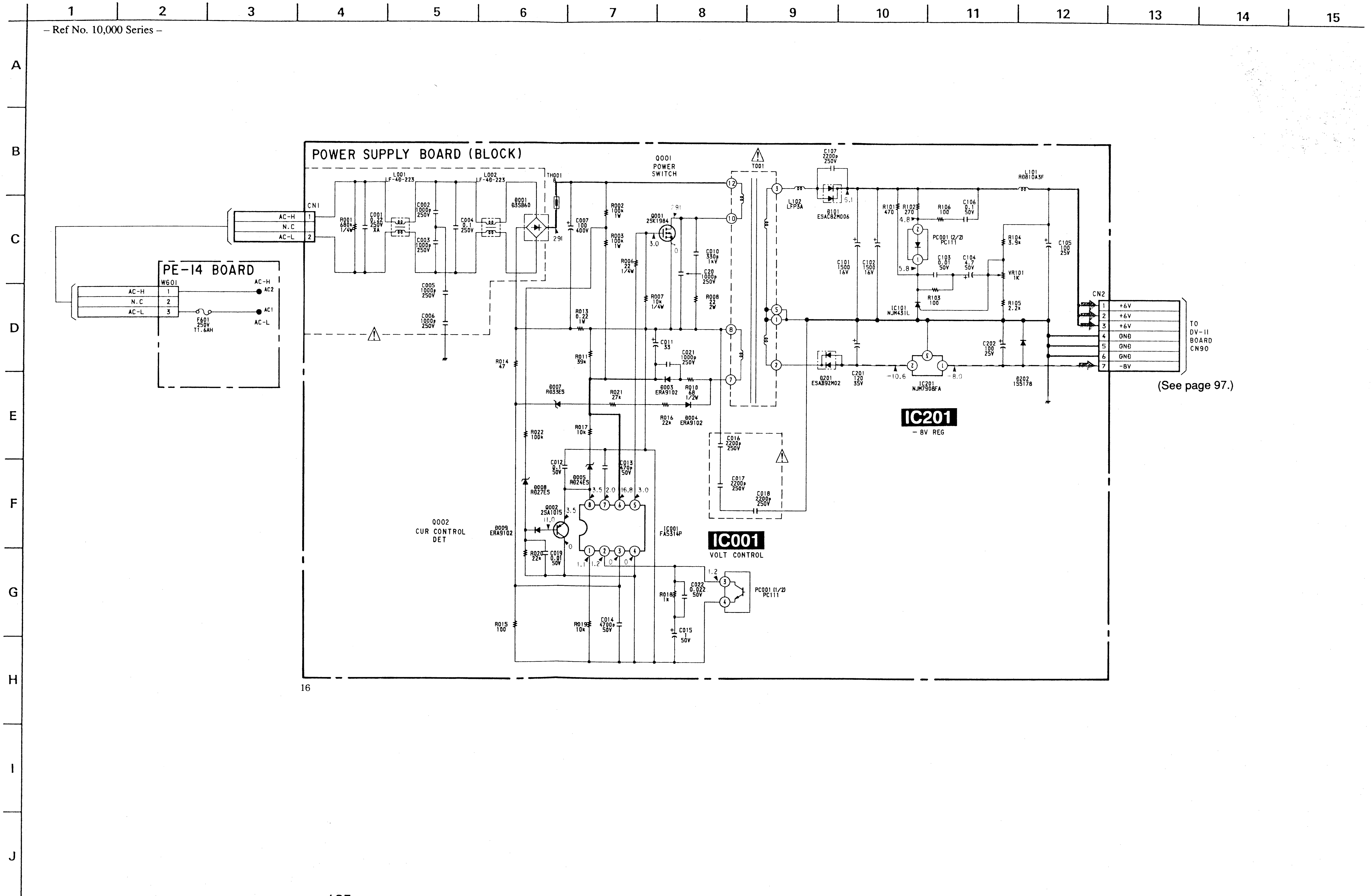
POWER SUPPLY BOARD


T001
226-A
7
C201
D201
L102
C101
D101
C104
RJ09
C102
RJ08
R105
RJ07
IC201
L101
VR101
C106
R106
C018
R102
R101
IC101
C017
D202
R104
RJ06
C105
C202
CN2
R103
C103
C016
PC001
PRIMARY
C010
C020
R002
R007
R006
L003
R003
Q001
R022
C019
Q002
C011
R008
C012
D008
RJ05
R013
C013
D009
R011
R017
C001
D005
R014
D003
C021
RJ02
R021
D007
R018
C022
C015
R010
RJ04
D004
R016
R019
C014
R015
TH001
D001
C007
L002
C004
C002
RJ01
C003
RJ10
C001
JAPAN
C005
R001
L001
C006
226-A
K-G00-179
CN1
1-413-817
11
A
B
D
1
2
3
4
5

16

POWER SUPPLY BOARD (BLOCK) /PE-14 BOARD SCHEMATIC DIAGRAM

– Ref No. 10,000 Series –

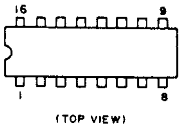


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
POWER SUPPLY BOARD (BLOCK)
PE-14 BOARD
W601
AC-H
N.C
AC-L
AC2
AC1
F601
250V
T1.6AH
CN1
L001
LF-40-223
L002
LF-40-223
R001
680k
1/4W
C001
0.22
250V
XA
C002
1000p
250V
C003
1000p
250V
C004
0.1
250V
C005
1000p
250V
C006
1000p
250V
D001
D3SB60
TH001
C007
100
400V
R002
100k
1W
R003
100k
1W
Q001
POWER
SWITCH
Q001
2SK1984
C010
330p
1kV
C20
1000p
250V
R006
22
1/4W
R007
10k
1/4W
R008
22
2W
R013
0.22
1W
R014
47
R011
39k
C011
33
C021
1000p
250V
D003
ERA9102
R010
68
1/2W
D007
RD33ES
R021
27k
R016
22k
D004
ERA9102
R017
10k
R022
100k
C012
0.1
50V
D005
RD24ES
C013
470p
50V
D008
RD27ES
Q002
2SA1015
Q002
CUR CONTROL
DET
D009
ERA9102
R020
22k
C019
0.01
50V
IC001
FA5314P
IC001
VOLT CONTROL
R018
1k
C022
0.022
50V
PC001 (1/2)
PC111
C015
1
50V
R015
100
R019
10k
C014
4700p
50V
C016
2200p
250V
C017
2200p
250V
C018
2200p
250V
T001
C107
2200p
250V
L102
LFP3A
D101
ESAC82M006
C101
1500
16V
C102
1500
16V
R101
470
R102
270
R106
100
C106
0.1
50V
PC001 (2/2)
PC111
C103
0.01
50V
C104
4.7
50V
R103
100
IC101
NJM431L
R104
3.9k
VR101
1K
R105
2.2k
L101
R0810A3F
C105
100
25V
D201
ESAB92M02
C201
120
35V
IC201
NJM7908FA
C202
100
25V
D202
1SS178
IC201
- 8V REG
CN2
+6V
+6V
+6V
GND
GND
GND
-8V
TO
DV-11
BOARD
CN90
16

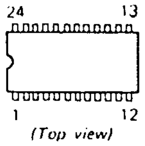
(See page 97.)

4-3. SEMICONDUCTOR LEAD LAYOUTS

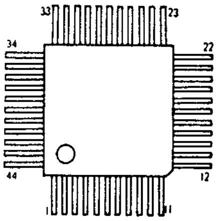
M5294P


16
9
1
8
(TOP VIEW)

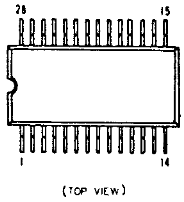
CXD1171M


24
13
1
12
(Top view)

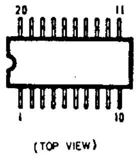
MSM72H017GS


33
23
34
22
44
12
1
11

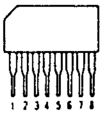
CXD1217M


28
15
1
14
(TOP VIEW)

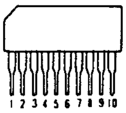
M62352FP
MC74HC241AF
MC74HC374AF-T2
TC74HC00AF (EL)
TC74HC241AF (EL)
TC74HC374AF


20
11
1
10
(TOP VIEW)

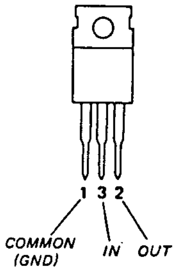
CX23065A



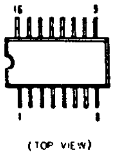
M5207L01


1 2 3 4 5 6 7 8 9 10

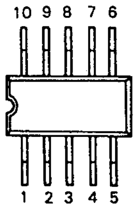
M5F7905


1 3 2
COMMON (GND)
IN
OUT

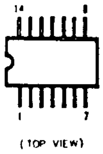
CXA1451M
MC74HC4053F
SN74LS221NS
TC74HC4052AF
TC74HC4053AF (EL)


16
9
1
8
(TOP VIEW)

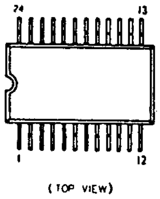
M6M80021FP


10 9 8 7 6
1 2 3 4 5

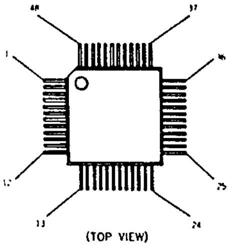
MC74HC00AF
MC74HC04AF
MC74HC32AF
SN74HC00ANS
TC74HC86AF


14
8
1
7
(TOP VIEW)

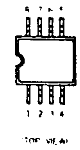
CXA1410M
CXD1175AM
M51272FP


24
13
1
12
(TOP VIEW)

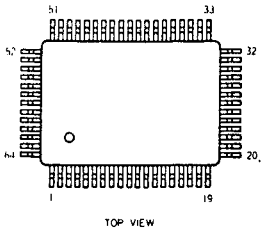
CXA1208Q
CXD1229Q


48
37
1
36
12
25
13
24
(TOP VIEW)

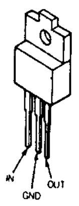
CXA1211M
M5238FP-600D
MC34182M
TC7W04F
TC7W08F
TC7W32F
TC7WU04F


8 7 6 5
1 2 3 4
TOP VIEW

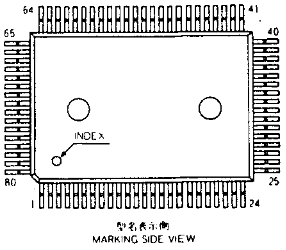
CXD1095Q
UPD75104G-633-1B


51
33
52
32
64
20
1
19
TOP VIEW

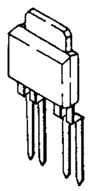
UPC2405HF



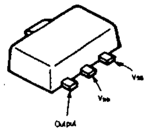
CXD1227Q
CXD2105AQ
CXP80P116Q-1-223


64
41
65
40
INDEX
80
25
1
24
MARKING SIDE VIEW

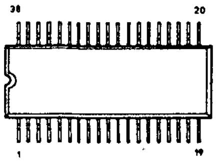
L88MS05T-FA-TL



S-8054ALB-LM-S

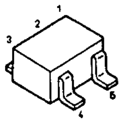

Vss
Vdd
Output

CXK1206AM

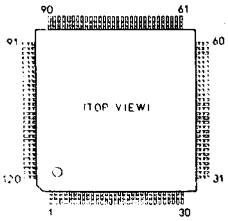


(TOP VIEW)

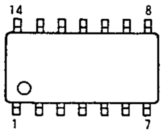
NJM2406F
SC7S32F



CXD1226Q
CXD1228Q

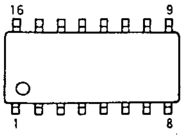

90
61
91
60
(TOP VIEW)
120
31
1
30

MC1496M
TC74HC00AF (EL)



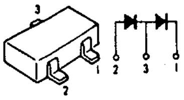
(TOP VIEW)

MAX232CWE

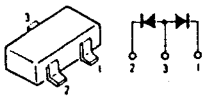


(TOP VIEW)

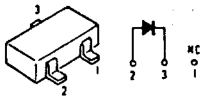
1SS226



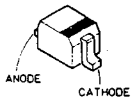
1S2836



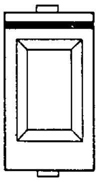
RD6.2M-B2
RD9.1M-B1
RD9.1M-B2



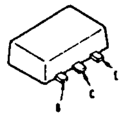
1T33C-01


ANODE
CATHODE

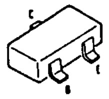
CL-140D-CD-T
CL-140PG-CD
CL-140R-CD
CL-140Y-CD



2SB798-DL
2SB798-DLDK



2SA1162
2SC1623-L5L6
2SC3624A-L15
2SC3735-L-B35
DTC114EK
DTD143EK



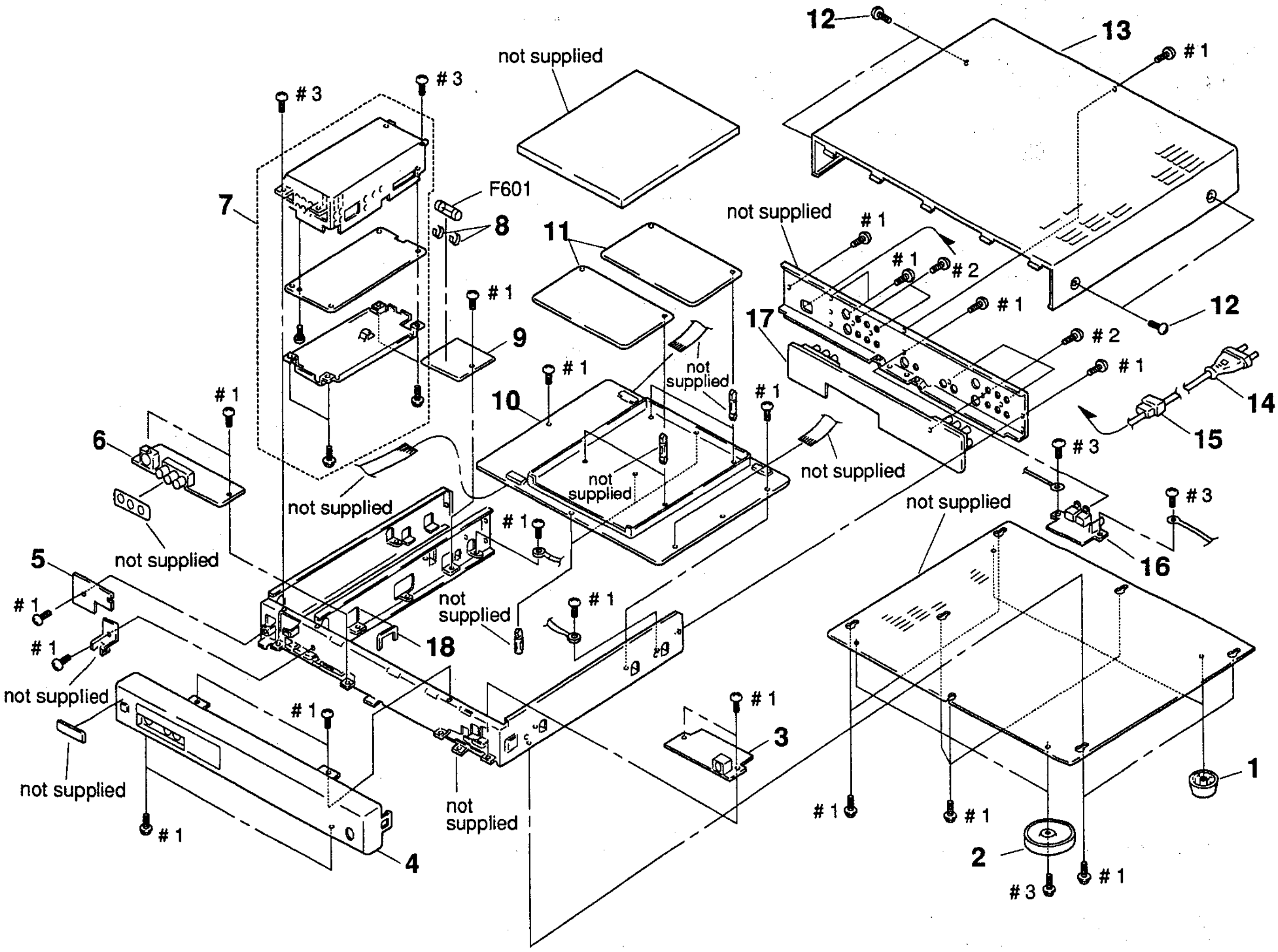
SECTION 5
EXPLODED VIEWS

NOTE:

- –XX, –X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example :
  KNOB, BALANCE (WHITE)...(RED)
  ↑ ↑
  Parts color Cabinet's color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

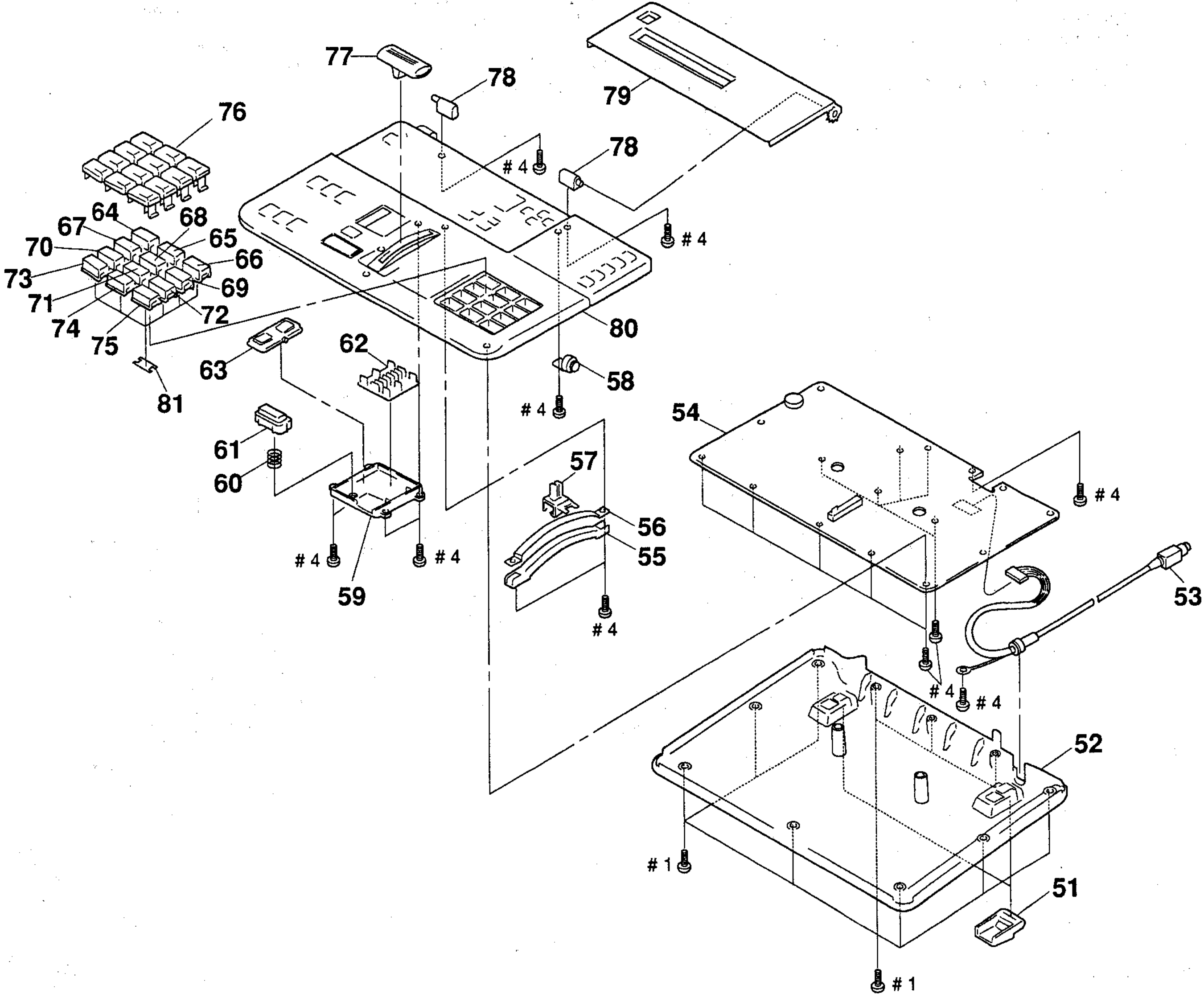
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

5-1. MAIN UNIT


12
13
# 1
not supplied
# 3
# 3
7
F601
8
11
not supplied
# 1
# 1
# 2
# 1
12
# 1
9
17
# 2
# 1
14
# 1
10
not supplied
# 1
15
6
not supplied
not supplied
# 3
not supplied
not supplied
# 3
not supplied
# 1
16
5
not supplied
# 1
not supplied
# 1
18
# 1
not supplied
# 1
# 1
3
1
not supplied
# 1
# 1
# 1
not supplied
2
# 1
4
# 3
# 1

Ref. No.	Part No.	Description	Remark
1	X-3701-069-0	FOOT ASSY, M. F	
2	X-3941-967-1	FOOT ASSY (FRONT)	
* 3	A-7071-820-A	CT-48 BOARD, COMPLETE	
4	X-3942-818-1	ORNAMENT ASSY, F	
* 5	A-7071-818-A	PS-309 BOARD, COMPLETE	
* 6	A-7071-819-A	FS-67 BOARD, COMPLETE	
⚠7	1-413-817-11	POWER BLOCK (220V-230V)	
8	1-533-189-11	HOLDER, FUSE	
* 9	A-7071-821-A	PE-14 BOARD, COMPLETE	
* 10	A-7053-564-A	DV-11 BOARD, COMPLETE	
* 11	A-7053-565-A	MB-61 BOARD, COMPLETE	
12	4-847-802-00	SCREW, CASE	
* 13	3-952-103-01	CASE, UPPER	
⚠14	1-555-795-00	CORD, POWER	
⚠15	3-703-244-00	BUSHING (2104), CORD	
* 16	A-7071-817-A	VJ-11 BOARD, COMPLETE	
* 17	A-7071-816-A	AB-20 BOARD, COMPLETE	
* 18	3-953-837-01	BUSHING, PROTECTION	
⚠F601	1-576-227-21	FUSE (H. B. C.) (250V 1. 6A)	

5-2. CONTROL UNIT



Ref. No.	Part No.	Description	Remark
51	3-953-461-01	FOOT	
52	X-3942-847-1	CASE ASSY, LOWER	
53	1-751-035-11	CORD, CONNECTION	
* 54	A-7071-827-A	DS-65 BOARD, COMPLETE	
* 55	3-953-460-01	RAIL, GUIDE	
* 56	3-954-115-01	RETAINER, RAIL	
57	3-952-888-01	RETAINER, LEVER	
58	4-919-393-41	DAMPER (WHT)	
* 59	3-952-906-01	COVER (Q)	
60	3-952-909-01	SPRING, COMPRESSION	
61	3-952-877-01	KEY TOP (J)	
62	3-952-900-01	GUIDE (3), LIGHT	
63	3-952-884-01	KEY TOP (Q)	
64	3-953-602-01	GUIDE (M) (1), LIGHT	
65	3-953-602-11	GUIDE (M) (2), LIGHT	
66	3-953-602-21	GUIDE (M) (3), LIGHT	
67	3-953-602-31	GUIDE (M) (4), LIGHT	
68	3-953-602-41	GUIDE (M) (5), LIGHT	
69	3-953-602-51	GUIDE (M) (6), LIGHT	
70	3-953-602-61	GUIDE (M) (7), LIGHT	
71	3-953-602-71	GUIDE (M) (8), LIGHT	
72	3-953-602-81	GUIDE (M) (9), LIGHT	
73	3-953-602-91	GUIDE (M) (10), LIGHT	
74	3-952-897-01	GUIDE (M) (START), LIGHT	
75	3-952-897-11	GUIDE (M) (REC), LIGHT	
76	3-952-880-01	KEY TOP (M)	
77	X-3942-819-1	LEVER ASSY	
78	3-952-916-01	SHAFT, ROTARY	
79	X-3942-821-1	LID ASSY	
80	X-3942-820-1	CASE ASSY, UPPER	
81	3-953-462-01	FILM	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- –XX, –X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS :
  uF : μF
- RESISTORS
  All resistors are in ohms.
  METAL : metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- COILS
  uH : μH
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA... : μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD... , μPD...

Ref. No.	Part No.	Description			Remark
*	A-7071-816-A	AB-20 BOARD, COMPLETE			
		**********************			
		(Ref. No. 5, 000 Series)			
		< CAPACITOR >			
C501	1-126-200-11	ELECT CHIP	10uF	20%	35V
C502	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C503	1-126-200-11	ELECT CHIP	10uF	20%	35V
C504	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C505	1-126-200-11	ELECT CHIP	10uF	20%	35V
C506	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C507	1-126-200-11	ELECT CHIP	10uF	20%	35V
C508	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C509	1-126-200-11	ELECT CHIP	10uF	20%	35V
C510	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C511	1-126-200-11	ELECT CHIP	10uF	20%	35V
C512	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C513	1-126-200-11	ELECT CHIP	10uF	20%	35V
C514	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C515	1-126-200-11	ELECT CHIP	10uF	20%	35V
C516	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C517	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C518	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C519	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C520	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C521	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C522	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C523	1-126-394-11	ELECT CHIP	10uF	20%	16V
C524	1-126-394-11	ELECT CHIP	10uF	20%	16V
C525	1-126-394-11	ELECT CHIP	10uF	20%	16V
C526	1-126-394-11	ELECT CHIP	10uF	20%	16V
C527	1-126-394-11	ELECT CHIP	10uF	20%	16V
C528	1-126-394-11	ELECT CHIP	10uF	20%	16V
C529	1-126-394-11	ELECT CHIP	10uF	20%	16V
C530	1-126-394-11	ELECT CHIP	10uF	20%	16V
C531	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C532	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C533	1-126-394-11	ELECT CHIP	10uF	20%	16V
C534	1-126-394-11	ELECT CHIP	10uF	20%	16V
C535	1-126-394-11	ELECT CHIP	10uF	20%	16V
C536	1-126-394-11	ELECT CHIP	10uF	20%	16V
C537	1-126-200-11	ELECT CHIP	10uF	20%	35V
C538	1-126-200-11	ELECT CHIP	10uF	20%	35V
C539	1-126-200-11	ELECT CHIP	10uF	20%	35V
C540	1-128-065-11	ELECT CHIP	68uF	20%	10V
C541	1-128-065-11	ELECT CHIP	68uF	20%	10V
C542	1-128-065-11	ELECT CHIP	68uF	20%	10V
C543	1-128-065-11	ELECT CHIP	68uF	20%	10V
C544	1-128-065-11	ELECT CHIP	68uF	20%	10V
C545	1-128-065-11	ELECT CHIP	68uF	20%	10V
C546	1-126-394-11	ELECT CHIP	10uF	20%	16V
C547	1-126-394-11	ELECT CHIP	10uF	20%	16V
C548	1-126-394-11	ELECT CHIP	10uF	20%	16V
C549	1-126-394-11	ELECT CHIP	10uF	20%	16V
C550	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C551	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C552	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C553	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C554	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C555	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C556	1-126-394-11	ELECT CHIP	10uF	20%	16V
C557	1-126-394-11	ELECT CHIP	10uF	20%	16V
C558	1-126-394-11	ELECT CHIP	10uF	20%	16V
C559	1-126-394-11	ELECT CHIP	10uF	20%	16V
C560	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C561	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C562	1-128-065-11	ELECT CHIP	68uF	20%	10V
C563	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C564	1-128-065-11	ELECT CHIP	68uF	20%	10V
C565	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C566	1-126-200-11	ELECT CHIP	10uF	20%	35V
C567	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C568	1-126-394-11	ELECT CHIP	10uF	20%	16V
C569	1-126-394-11	ELECT CHIP	10uF	20%	16V
C570	1-126-200-11	ELECT CHIP	10uF	20%	35V
C571	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C572	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C573	1-126-602-11	ELECT CHIP	3.3uF	20%	50V
C574	1-126-602-11	ELECT CHIP	3.3uF	20%	50V
C575	1-126-206-11	ELECT CHIP	100uF	20%	6.3V

Ref. No.	Part No.	Description	Remark
C576	1-126-206-11	ELECT CHIP 100uF	20% 6.3V
C577	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C578	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C579	1-128-065-11	ELECT CHIP 68uF	20% 10V
		< CONNECTOR >	
CN501	1-569-478-21	CONNECTOR, FPC 20P	
CN502	1-569-478-21	CONNECTOR, FPC 20P	
		< DIODE >	
D501	8-719-800-76	DIODE 1SS226	
D502	8-719-800-76	DIODE 1SS226	
D503	8-719-800-76	DIODE 1SS226	
D504	8-719-800-76	DIODE 1SS226	
D505	8-719-800-76	DIODE 1SS226	
D506	8-719-800-76	DIODE 1SS226	
D507	8-719-800-76	DIODE 1SS226	
D508	8-719-800-76	DIODE 1SS226	
		< FERRITE BEAD >	
FB501	1-543-775-11	FILTER, EMI	
FB502	1-543-775-11	FILTER, EMI	
FB503	1-543-775-11	FILTER, EMI	
FB504	1-543-775-11	FILTER, EMI	
FB505	1-543-775-11	FILTER, EMI	
FB506	1-543-775-11	FILTER, EMI	
FB507	1-543-775-11	FILTER, EMI	
FB508	1-543-775-11	FILTER, EMI	
FB509	1-543-775-11	FILTER, EMI	
FB510	1-543-775-11	FILTER, EMI	
FB511	1-543-775-11	FILTER, EMI	
FB512	1-543-775-11	FILTER, EMI	
FB513	1-543-775-11	FILTER, EMI	
FB514	1-543-775-11	FILTER, EMI	
FB515	1-543-775-11	FILTER, EMI	
FB516	1-543-775-11	FILTER, EMI	
FB517	1-543-775-11	FILTER, EMI	
FB518	1-543-775-11	FILTER, EMI	
FB519	1-543-775-11	FILTER, EMI	
FB520	1-543-775-11	FILTER, EMI	
FB523	1-543-775-11	FILTER, EMI	
FB524	1-543-775-11	FILTER, EMI	
FB529	1-543-775-11	FILTER, EMI	
FB530	1-543-775-11	FILTER, EMI	
FB533	1-543-775-11	FILTER, EMI	
FB534	1-543-775-11	FILTER, EMI	
FB535	1-543-775-11	FILTER, EMI	
FB536	1-543-775-11	FILTER, EMI	
FB537	1-543-775-11	FILTER, EMI	
FB538	1-543-775-11	FILTER, EMI	
FB539	1-543-775-11	FILTER, EMI	
FB541	1-543-775-11	FILTER, EMI	
FB547	1-543-775-11	FILTER, EMI	
FB548	1-543-775-11	FILTER, EMI	
		< IC >	
IC501	8-759-177-63	IC M5238FP-600D	
IC502	8-759-177-63	IC M5238FP-600D	
IC503	8-759-177-63	IC M5238FP-600D	
IC504	8-759-177-63	IC M5238FP-600D	
IC505	8-759-230-98	IC TC74HC4052AF	
IC506	8-759-230-98	IC TC74HC4052AF	
IC507	8-759-634-16	IC M5207L01	
IC508	8-759-634-16	IC M5207L01	
IC509	8-759-634-16	IC M5207L01	
IC510	8-759-177-63	IC M5238FP-600D	
IC511	8-759-177-63	IC M5238FP-600D	
IC512	8-759-177-63	IC M5238FP-600D	
IC513	8-759-177-63	IC M5238FP-600D	
IC514	8-759-631-40	IC M5294P	
		< JACK >	
J501	1-750-211-11	JACK BLOCK, PIN 2P(AUX AUDIO INPUT L/R)	
J502	1-750-213-11	TERMINAL BLOCK, (S) 8P (INPUT 1/2:AUDIO L/R, VIDEO, S VIDEO)	
J503	1-750-213-11	TERMINAL BLOCK, (S) 8P (OUTPUT 1/2:AUDIO L/R, VIDEO, S VIDEO)	
		< TRANSISTOR >	
Q501	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q502	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q503	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q504	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q505	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q506	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q507	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q508	8-729-216-22	TRANSISTOR 2SA1162	
		< RESISTOR >	
R501	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R502	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R503	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R504	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R505	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R506	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R507	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R508	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R509	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	
R510	1-218-760-11	METAL CHIP 220K 0.50% 1/10W	

Ref. No.	Part No.	Description			Remark
R511	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R512	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R513	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R514	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R515	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R516	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R517	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R518	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R519	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R520	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R521	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R522	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R523	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R524	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R525	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R526	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R527	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R528	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R529	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R530	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R531	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R532	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R533	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R534	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R535	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R536	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R537	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R538	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R539	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R540	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R541	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R542	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R543	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R544	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R545	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R546	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R547	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R548	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R549	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R550	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R551	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R552	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R553	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R554	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R555	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R556	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R557	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R558	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R559	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R560	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R561	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R562	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R563	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R564	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R565	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R566	1-216-121-00	METAL CHIP	1M	5%	1/10W
R567	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R568	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R569	1-216-695-11	METAL CHIP	68K	0.5%	1/10W
R570	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W
R571	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R572	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R573	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R574	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R575	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R576	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R577	1-216-073-00	METAL CHIP	10K	5%	1/10W
R578	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R579	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R580	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R581	1-216-073-00	METAL CHIP	10K	5%	1/10W
R582	1-216-073-00	METAL CHIP	10K	5%	1/10W
R583	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R584	1-216-073-00	METAL CHIP	10K	5%	1/10W
R585	1-216-699-11	METAL CHIP	100K	0.5%	1/10W
R586	1-216-073-00	METAL CHIP	10K	5%	1/10W
R587	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R588	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R589	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R590	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R591	1-216-073-00	METAL CHIP	10K	5%	1/10W
R592	1-216-073-00	METAL CHIP	10K	5%	1/10W

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* A-7071-820-A CT-48 BOARD, COMPLETE

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(Ref. No. 3,000 Series)

< DIODE >

D301 8-719-106-43 DIODE RD9.1M-B1

< FERRITE BEAD >

FB301 1-239-077-11 FILTER, EMI

< JACK >

J777 1-750-210-11 CONNECTOR (ROUND TYPE) 7P (CONTROL UNIT)

< COIL >

Ref. No.	Part No.	Description	Remark
L301	1-543-775-11	FILTER, EMI	
L302	1-543-775-11	FILTER, EMI	
L303	1-543-775-11	FILTER, EMI	
L304	1-543-775-11	FILTER, EMI	
L305	1-543-775-11	FILTER, EMI	

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Ref. No.	Part No.	Description	Remark
*	A-7071-827-A	DS-65 BOARD, COMPLETE ********************** (Ref. No. 6,000 Series)	
*	3-952-895-01	SEPARATOR, LED	

< BUZZER >

Ref. No.	Part No.	Description	Remark
BZ901	1-529-070-11	BUZZER	

< CAPACITOR >

Ref. No.	Part No.	Description			
C902	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C903	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C904	1-128-065-11	ELECT CHIP	68uF	20%	10V
C905	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C906	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C907	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C908	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C909	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C910	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
CN901	1-506-486-11	PIN, CONNECTOR 7P	

< DIODE >

Ref. No.	Part No.	Description	Remark
D101	8-719-800-76	DIODE 1SS226	
D102	8-719-037-62	DIODE CL-140D-CD-T	(L+4)
D103	8-719-037-62	DIODE CL-140D-CD-T	(LINE A)
D104	8-719-037-62	DIODE CL-140D-CD-T	(MAX)
D105	8-719-037-62	DIODE CL-140D-CD-T	(MIN)
D106	8-719-037-62	DIODE CL-140D-CD-T	(B+3)
D107	8-719-037-62	DIODE CL-140D-CD-T	(CHRO A)
D108	8-719-037-62	DIODE CL-140D-CD-T	(AV/ADJ. MEMORY A)
D109	8-719-037-62	DIODE CL-140D-CD-T	
D110	8-719-037-62	DIODE CL-140D-CD-T	
D111	8-719-037-62	DIODE CL-140D-CD-T	
D112	8-719-037-62	DIODE CL-140D-CD-T	(LINE A EFFECT ON/OFF)
D113	8-719-037-62	DIODE CL-140D-CD-T	(LINE B EFFECT ON/OFF)
D114	8-719-037-62	DIODE CL-140D-CD-T	(➡)
D115	8-719-037-62	DIODE CL-140D-CD-T	(➡)
D116	8-719-037-62	DIODE CL-140D-CD-T	
D117	8-719-037-62	DIODE CL-140D-CD-T	
D118	8-719-037-62	DIODE CL-140D-CD-T	(☰)
D119	8-719-037-62	DIODE CL-140D-CD-T	(SQU ZOOM)
D120	8-719-037-62	DIODE CL-140D-CD-T	(LINE A 1)
D121	8-719-037-62	DIODE CL-140D-CD-T	
D122	8-719-037-62	DIODE CL-140D-CD-T	
D123	8-719-037-62	DIODE CL-140D-CD-T	
D124	8-719-037-62	DIODE CL-140D-CD-T	(BIT DEFECT F)
D125	8-719-037-62	DIODE CL-140D-CD-T	
D126	8-719-037-62	DIODE CL-140D-CD-T	
D127	8-719-037-62	DIODE CL-140D-CD-T	
D128	8-719-037-62	DIODE CL-140D-CD-T	(M SET)
D129	8-719-037-62	DIODE CL-140D-CD-T	
D130	8-719-037-62	DIODE CL-140D-CD-T	
D131	8-719-037-62	DIODE CL-140D-CD-T	
D132	8-719-037-62	DIODE CL-140D-CD-T	(M 6)
D133	8-719-037-62	DIODE CL-140D-CD-T	
D134	8-719-037-62	DIODE CL-140D-CD-T	
D135	8-719-037-62	DIODE CL-140D-CD-T	
D201	8-719-800-76	DIODE 1SS226	
D202	8-719-037-62	DIODE CL-140D-CD-T	(L+3)
D203	8-719-037-62	DIODE CL-140D-CD-T	(FAST)
D204	8-719-037-62	DIODE CL-140D-CD-T	(+3)
D205	8-719-037-62	DIODE CL-140D-CD-T	(A+4)
D206	8-719-037-62	DIODE CL-140D-CD-T	(B+4)
D207	8-719-037-62	DIODE CL-140D-CD-T	(YNR A)
D208	8-719-037-62	DIODE CL-140D-CD-T	(C HRO B)
D209	8-719-037-62	DIODE CL-140D-CD-T	(A/V ADJ. MEMORY B)
D210	8-719-037-62	DIODE CL-140D-CD-T	
D211	8-719-037-62	DIODE CL-140D-CD-T	
D212	8-719-037-62	DIODE CL-140D-CD-T	
D213	8-719-037-62	DIODE CL-140D-CD-T	(FIELD)
D214	8-719-037-62	DIODE CL-140D-CD-T	(BIT DEF)
D215	8-719-037-62	DIODE CL-140D-CD-T	(⬅)
D216	8-719-037-62	DIODE CL-140D-CD-T	
D217	8-719-037-62	DIODE CL-140D-CD-T	
D218	8-719-037-62	DIODE CL-140D-CD-T	
D219	8-719-037-62	DIODE CL-140D-CD-T	(⊞)
D220	8-719-037-62	DIODE CL-140D-CD-T	(RND16)
D221	8-719-037-62	DIODE CL-140D-CD-T	(LINE A 2)
D222	8-719-037-62	DIODE CL-140D-CD-T	
D223	8-719-037-62	DIODE CL-140D-CD-T	
D224	8-719-037-62	DIODE CL-140D-CD-T	
D225	8-719-037-62	DIODE CL-140D-CD-T	(START)
D226	8-719-037-62	DIODE CL-140D-CD-T	(MIX)
D227	8-719-037-62	DIODE CL-140D-CD-T	
D228	8-719-037-62	DIODE CL-140D-CD-T	

Ref. No.	Part No.	Description	Remark
D229	8-719-037-62	DIODE CL-140D-CD-T	(MIX)
D230	8-719-037-62	DIODE CL-140D-CD-T	(M DEL)
D231	8-719-037-62	DIODE CL-140D-CD-T	
D232	8-719-037-62	DIODE CL-140D-CD-T	
D233	8-719-037-62	DIODE CL-140D-CD-T	
D234	8-719-037-62	DIODE CL-140D-CD-T	(M 7)
D235	8-719-037-62	DIODE CL-140D-CD-T	
D236	8-719-037-62	DIODE CL-140D-CD-T	
D237	8-719-037-62	DIODE CL-140D-CD-T	
D238	8-719-037-62	DIODE CL-140D-CD-T	(START)
D301	8-719-800-76	DIODE 1SS226	
D302	8-719-037-62	DIODE CL-140D-CD-T	(L+2)
D303	8-719-037-62	DIODE CL-140D-CD-T	(SLOW)
D304	8-719-037-62	DIODE CL-140D-CD-T	(+2)
D305	8-719-037-62	DIODE CL-140D-CD-T	(A+3)
D306	8-719-987-02	DIODE CL-140PG-CD	(POWER/ON STANDBY)
D307	8-719-037-62	DIODE CL-140D-CD-T	(CNR A)
D308	8-719-037-62	DIODE CL-140D-CD-T	(LUMI/H CEN A)
D309	8-719-037-62	DIODE CL-140D-CD-T	(A/V ADJ. MEMORY C)
D310	8-719-037-62	DIODE CL-140D-CD-T	
D311	8-719-037-62	DIODE CL-140D-CD-T	
D312	8-719-037-62	DIODE CL-140D-CD-T	
D313	8-719-037-62	DIODE CL-140D-CD-T	(MULTI)
D314	8-719-037-62	DIODE CL-140D-CD-T	(MONO T)
D315	8-719-037-62	DIODE CL-140D-CD-T	(⬆)
D316	8-719-037-62	DIODE CL-140D-CD-T	
D317	8-719-037-62	DIODE CL-140D-CD-T	
D318	8-719-037-62	DIODE CL-140D-CD-T	
D319	8-719-037-62	DIODE CL-140D-CD-T	(⊞)
D320	8-719-037-62	DIODE CL-140D-CD-T	(★)
D321	8-719-037-62	DIODE CL-140D-CD-T	(LINE A 3)
D322	8-719-037-62	DIODE CL-140D-CD-T	
D323	8-719-037-62	DIODE CL-140D-CD-T	
D324	8-719-037-62	DIODE CL-140D-CD-T	
D325	8-719-037-62	DIODE CL-140D-CD-T	(AUTO)
D326	8-719-037-62	DIODE CL-140D-CD-T	
D327	8-719-037-62	DIODE CL-140D-CD-T	
D328	8-719-037-62	DIODE CL-140D-CD-T	
D329	8-719-037-62	DIODE CL-140D-CD-T	(LINE A)
D330	8-719-037-62	DIODE CL-140D-CD-T	
D331	8-719-037-62	DIODE CL-140D-CD-T	
D332	8-719-037-62	DIODE CL-140D-CD-T	
D333	8-719-037-62	DIODE CL-140D-CD-T	(OPTION)
D334	8-719-037-62	DIODE CL-140D-CD-T	
D335	8-719-037-62	DIODE CL-140D-CD-T	
D336	8-719-037-62	DIODE CL-140D-CD-T	
D337	8-719-037-62	DIODE CL-140D-CD-T	(M 8)
D338	8-719-037-62	DIODE CL-140D-CD-T	
D339	8-719-037-62	DIODE CL-140D-CD-T	
D340	8-719-037-62	DIODE CL-140D-CD-T	(M 8)
D401	8-719-800-76	DIODE 1SS226	
D402	8-719-037-62	DIODE CL-140D-CD-T	(L+1)
D403	8-719-037-62	DIODE CL-140D-CD-T	(LINE B)
D404	8-719-037-62	DIODE CL-140D-CD-T	(+1)
D405	8-719-037-62	DIODE CL-140D-CD-T	(A+2)
D406	8-719-037-62	DIODE CL-140D-CD-T	(V E A)
D407	8-719-037-62	DIODE CL-140D-CD-T	(LUMI/H CEN B)
D408	8-719-037-62	DIODE CL-140D-CD-T	(NORMAL)
D409	8-719-037-62	DIODE CL-140D-CD-T	
D410	8-719-037-62	DIODE CL-140D-CD-T	
D411	8-719-037-62	DIODE CL-140D-CD-T	
D412	8-719-037-62	DIODE CL-140D-CD-T	(TITLE INDEX)
D413	8-719-037-62	DIODE CL-140D-CD-T	(AFTER)
D414	8-719-037-62	DIODE CL-140D-CD-T	(⬇)
D415	8-719-037-62	DIODE CL-140D-CD-T	
D416	8-719-037-62	DIODE CL-140D-CD-T	
D417	8-719-037-62	DIODE CL-140D-CD-T	
D418	8-719-037-62	DIODE CL-140D-CD-T	(▣)
D419	8-719-037-62	DIODE CL-140D-CD-T	(◆)
D420	8-719-037-62	DIODE CL-140D-CD-T	(LINE B 1)
D421	8-719-037-62	DIODE CL-140D-CD-T	
D422	8-719-037-62	DIODE CL-140D-CD-T	
D423	8-719-037-62	DIODE CL-140D-CD-T	
D424	8-719-037-62	DIODE CL-140D-CD-T	(WHITE)
D425	8-719-037-62	DIODE CL-140D-CD-T	
D426	8-719-037-62	DIODE CL-140D-CD-T	
D427	8-719-037-62	DIODE CL-140D-CD-T	
D428	8-719-037-62	DIODE CL-140D-CD-T	(LINE B)
D429	8-719-037-62	DIODE CL-140D-CD-T	
D430	8-719-037-62	DIODE CL-140D-CD-T	
D431	8-719-037-62	DIODE CL-140D-CD-T	
D432	8-719-037-62	DIODE CL-140D-CD-T	(M 1)
D433	8-719-037-62	DIODE CL-140D-CD-T	
D434	8-719-037-62	DIODE CL-140D-CD-T	
D435	8-719-037-62	DIODE CL-140D-CD-T	
D436	8-719-037-62	DIODE CL-140D-CD-T	(M 9)
D437	8-719-037-62	DIODE CL-140D-CD-T	
D438	8-719-037-62	DIODE CL-140D-CD-T	
D439	8-719-037-62	DIODE CL-140D-CD-T	
D501	8-719-800-76	DIODE 1SS226	
D502	8-719-037-62	DIODE CL-140D-CD-T	(R+1)
D503	8-719-037-62	DIODE CL-140D-CD-T	(POSITION)
D504	8-719-037-62	DIODE CL-140D-CD-T	(CENTER)
D505	8-719-037-62	DIODE CL-140D-CD-T	(A+1)
D506	8-719-037-62	DIODE CL-140D-CD-T	(WHT BAL)
D507	8-719-037-62	DIODE CL-140D-CD-T	(T SET)
D508	8-719-037-62	DIODE CL-140D-CD-T	
D509	8-719-037-62	DIODE CL-140D-CD-T	

Ref. No.	Part No.	Description		Remark
D510	8-719-037-62	DIODE	CL-140D-CD-T	(T SET)
D511	8-719-037-62	DIODE	CL-140D-CD-T	(FREEZE ON)
D512	8-719-037-62	DIODE	CL-140D-CD-T	(◧)
D516	8-719-037-62	DIODE	CL-140D-CD-T	(🔁)
D517	8-719-037-62	DIODE	CL-140D-CD-T	(ONEWAY)
D518	8-719-037-62	DIODE	CL-140D-CD-T	(LINE B 2)
D519	8-719-037-62	DIODE	CL-140D-CD-T	
D520	8-719-037-62	DIODE	CL-140D-CD-T	
D521	8-719-037-62	DIODE	CL-140D-CD-T	
D522	8-719-037-62	DIODE	CL-140D-CD-T	(BLACK)
D523	8-719-037-62	DIODE	CL-140D-CD-T	
D524	8-719-037-62	DIODE	CL-140D-CD-T	
D525	8-719-037-62	DIODE	CL-140D-CD-T	
D526	8-719-037-62	DIODE	CL-140D-CD-T	(M 2)
D527	8-719-037-62	DIODE	CL-140D-CD-T	
D528	8-719-037-62	DIODE	CL-140D-CD-T	
D529	8-719-037-62	DIODE	CL-140D-CD-T	
D530	8-719-037-62	DIODE	CL-140D-CD-T	(M 10)
D531	8-719-037-62	DIODE	CL-140D-CD-T	
D532	8-719-037-62	DIODE	CL-140D-CD-T	
D533	8-719-037-62	DIODE	CL-140D-CD-T	
D601	8-719-800-76	DIODE	1SS226	
D602	8-719-037-62	DIODE	CL-140D-CD-T	(R+2)
D603	8-719-037-62	DIODE	CL-140D-CD-T	(SPEED)
D604	8-719-037-62	DIODE	CL-140D-CD-T	(-1)
D605	8-719-037-62	DIODE	CL-140D-CD-T	(A+B)
D606	8-719-037-62	DIODE	CL-140D-CD-T	(YNR B)
D607	8-719-037-62	DIODE	CL-140D-CD-T	(AU LEV A)
D608	8-719-037-62	DIODE	CL-140D-CD-T	(T DEL)
D609	8-719-037-62	DIODE	CL-140D-CD-T	
D610	8-719-037-62	DIODE	CL-140D-CD-T	
D611	8-719-037-62	DIODE	CL-140D-CD-T	
D612	8-719-037-62	DIODE	CL-140D-CD-T	(◨)
D616	8-719-037-62	DIODE	CL-140D-CD-T	(🔁)
D617	8-719-037-62	DIODE	CL-140D-CD-T	(REVERSE)
D618	8-719-037-62	DIODE	CL-140D-CD-T	(LINE B 3)
D619	8-719-037-62	DIODE	CL-140D-CD-T	
D620	8-719-037-62	DIODE	CL-140D-CD-T	
D621	8-719-037-62	DIODE	CL-140D-CD-T	
D622	8-719-037-62	DIODE	CL-140D-CD-T	(MIX)
D623	8-719-037-62	DIODE	CL-140D-CD-T	
D624	8-719-037-62	DIODE	CL-140D-CD-T	
D625	8-719-037-62	DIODE	CL-140D-CD-T	
D626	8-719-037-62	DIODE	CL-140D-CD-T	(M 3)
D627	8-719-037-62	DIODE	CL-140D-CD-T	
D628	8-719-037-62	DIODE	CL-140D-CD-T	
D629	8-719-037-62	DIODE	CL-140D-CD-T	
D630	8-719-037-62	DIODE	CL-140D-CD-T	(START MEMORY)

Ref. No.	Part No.	Description		Remark
D631	8-719-037-62	DIODE	CL-140D-CD-T	(START MEMORY)
D632	8-719-037-62	DIODE	CL-140D-CD-T	
D633	8-719-037-62	DIODE	CL-140D-CD-T	
D701	8-719-800-76	DIODE	1SS226	
D702	8-719-037-62	DIODE	CL-140D-CD-T	(R+3)
D703	8-719-037-62	DIODE	CL-140D-CD-T	(MOSAIC)
D704	8-719-037-62	DIODE	CL-140D-CD-T	(-2)
D705	8-719-037-62	DIODE	CL-140D-CD-T	(B+1)
D706	8-719-037-62	DIODE	CL-140D-CD-T	(CNR B)
D707	8-719-037-62	DIODE	CL-140D-CD-T	(AU LEV B)
D708	8-719-037-62	DIODE	CL-140D-CD-T	(⬒)
D712	8-719-037-62	DIODE	CL-140D-CD-T	(♥)
D713	8-719-037-62	DIODE	CL-140D-CD-T	(BLACK INS)
D714	8-719-037-62	DIODE	CL-140D-CD-T	(MONO F)
D715	8-719-037-62	DIODE	CL-140D-CD-T	
D716	8-719-037-62	DIODE	CL-140D-CD-T	
D717	8-719-037-62	DIODE	CL-140D-CD-T	
D718	8-719-037-62	DIODE	CL-140D-CD-T	(M 4)
D719	8-719-037-62	DIODE	CL-140D-CD-T	
D720	8-719-037-62	DIODE	CL-140D-CD-T	
D721	8-719-037-62	DIODE	CL-140D-CD-T	
D722	8-719-037-62	DIODE	CL-140D-CD-T	(RECALL)
D723	8-719-037-62	DIODE	CL-140D-CD-T	
D724	8-719-037-62	DIODE	CL-140D-CD-T	
D725	8-719-037-62	DIODE	CL-140D-CD-T	
D801	8-719-800-76	DIODE	1SS226	
D802	8-719-037-62	DIODE	CL-140D-CD-T	(R+4)
D803	8-719-037-62	DIODE	CL-140D-CD-T	(FLASHMOTION)
D804	8-719-037-62	DIODE	CL-140D-CD-T	(-3)
D805	8-719-037-62	DIODE	CL-140D-CD-T	(B+2)
D806	8-719-037-62	DIODE	CL-140D-CD-T	(V E B)
D807	8-719-037-62	DIODE	CL-140D-CD-T	(AUX AUDIO)
D808	8-719-037-62	DIODE	CL-140D-CD-T	(NORMAL)
D809	8-719-037-62	DIODE	CL-140D-CD-T	(⬓)
D813	8-719-037-62	DIODE	CL-140D-CD-T	(◙)
D814	8-719-037-62	DIODE	CL-140D-CD-T	(POSITION)
D815	8-719-037-62	DIODE	CL-140D-CD-T	(MOSAIC F)
D816	8-719-037-62	DIODE	CL-140D-CD-T	
D817	8-719-037-62	DIODE	CL-140D-CD-T	
D818	8-719-037-62	DIODE	CL-140D-CD-T	
D819	8-719-037-62	DIODE	CL-140D-CD-T	(M 5)
D820	8-719-037-62	DIODE	CL-140D-CD-T	
D821	8-719-037-62	DIODE	CL-140D-CD-T	
D822	8-719-037-62	DIODE	CL-140D-CD-T	
D901	8-719-800-76	DIODE	1SS226	
D902	8-719-800-76	DIODE	1SS226	
D903	8-719-800-76	DIODE	1SS226	
D904	8-719-800-76	DIODE	1SS226	
D905	8-719-106-44	DIODE	RD9.1M-B2	

Ref. No.	Part No.	Description	Remark
D910	8-719-106-08	DIODE RD6.2M-B2	
D911	8-719-106-08	DIODE RD6.2M-B2	
D912	8-719-106-08	DIODE RD6.2M-B2	
D913	8-719-106-08	DIODE RD6.2M-B2	
		< FERRITE BEAD >	
FB901	1-412-390-21	INDUCTOR CHIP 0uH	
FB902	1-412-390-21	INDUCTOR CHIP 0uH	
FB903	1-412-390-21	INDUCTOR CHIP 0uH	
FB904	1-412-390-21	INDUCTOR CHIP 0uH	
FB905	1-412-390-21	INDUCTOR CHIP 0uH	
FB906	1-543-813-21	FILTER, EMI	
		< IC >	
IC901	8-752-838-90	IC CXP80P116Q-1-223	
IC902	8-759-822-XX	IC L88MS05T-FA-TL	
IC903	8-759-937-56	IC S-8054ALB-LM-S	
IC904	8-759-032-01	IC MC74HC00AF	
		< TRANSISTOR >	
Q101	8-729-216-22	TRANSISTOR 2SA1162	
Q102	8-729-140-72	TRANSISTOR 2SB798-DLDK	
Q201	8-729-216-22	TRANSISTOR 2SA1162	
Q202	8-729-140-72	TRANSISTOR 2SB798-DLDK	
Q301	8-729-216-22	TRANSISTOR 2SA1162	
Q302	8-729-140-72	TRANSISTOR 2SB798-DLDK	
Q401	8-729-216-22	TRANSISTOR 2SA1162	
Q402	8-729-140-72	TRANSISTOR 2SB798-DLDK	
Q501	8-729-216-22	TRANSISTOR 2SA1162	
Q502	8-729-140-72	TRANSISTOR 2SB798-DLDK	
Q601	8-729-216-22	TRANSISTOR 2SA1162	
Q602	8-729-140-72	TRANSISTOR 2SB798-DLDK	
Q701	8-729-216-22	TRANSISTOR 2SA1162	
Q702	8-729-140-72	TRANSISTOR 2SB798-DLDK	
Q801	8-729-216-22	TRANSISTOR 2SA1162	
Q802	8-729-140-72	TRANSISTOR 2SB798-DLDK	
Q901	8-729-904-72	TRANSISTOR DTD143EK	
Q902	8-729-904-72	TRANSISTOR DTD143EK	
Q903	8-729-904-72	TRANSISTOR DTD143EK	
Q905	8-729-904-72	TRANSISTOR DTD143EK	
Q907	8-729-904-72	TRANSISTOR DTD143EK	
Q909	8-729-904-72	TRANSISTOR DTD143EK	
Q910	8-729-904-72	TRANSISTOR DTD143EK	
Q914	8-729-904-72	TRANSISTOR DTD143EK	
Q916	8-729-904-72	TRANSISTOR DTD143EK	
Q918	8-729-904-72	TRANSISTOR DTD143EK	
Q920	8-729-904-72	TRANSISTOR DTD143EK	
Q922	8-729-904-72	TRANSISTOR DTD143EK	
Q927	8-729-904-72	TRANSISTOR DTD143EK	

Ref. No.	Part No.	Description	Remark
Q928	8-729-904-72	TRANSISTOR DTD143EK	
Q930	8-729-904-72	TRANSISTOR DTD143EK	
Q932	8-729-904-72	TRANSISTOR DTD143EK	
Q934	8-729-140-47	TRANSISTOR 2SC3735-L-B35	
Q935	8-729-140-47	TRANSISTOR 2SC3735-L-B35	
Q936	8-729-140-47	TRANSISTOR 2SC3735-L-B35	
Q937	8-729-904-72	TRANSISTOR DTD143EK	
Q938	8-729-140-47	TRANSISTOR 2SC3735-L-B35	
Q939	8-729-140-47	TRANSISTOR 2SC3735-L-B35	
Q940	8-729-140-47	TRANSISTOR 2SC3735-L-B35	
Q941	8-729-140-47	TRANSISTOR 2SC3735-L-B35	
		< RESISTOR >	
R101	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R102	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R103	1-216-023-00	METAL CHIP 82 5% 1/10W	
R104	1-216-023-00	METAL CHIP 82 5% 1/10W	
R105	1-216-023-00	METAL CHIP 82 5% 1/10W	
R106	1-216-023-00	METAL CHIP 82 5% 1/10W	
R107	1-216-023-00	METAL CHIP 82 5% 1/10W	
R108	1-216-023-00	METAL CHIP 82 5% 1/10W	
R111	1-216-023-00	METAL CHIP 82 5% 1/10W	
R112	1-216-023-00	METAL CHIP 82 5% 1/10W	
R115	1-216-023-00	METAL CHIP 82 5% 1/10W	
R116	1-216-023-00	METAL CHIP 82 5% 1/10W	
R121	1-216-023-00	METAL CHIP 82 5% 1/10W	
R122	1-216-023-00	METAL CHIP 82 5% 1/10W	
R125	1-216-023-00	METAL CHIP 82 5% 1/10W	
R126	1-216-023-00	METAL CHIP 82 5% 1/10W	
R127	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R129	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R133	1-216-023-00	METAL CHIP 82 5% 1/10W	
R134	1-216-023-00	METAL CHIP 82 5% 1/10W	
R137	1-216-023-00	METAL CHIP 82 5% 1/10W	
R138	1-216-023-00	METAL CHIP 82 5% 1/10W	
R139	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R140	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R141	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R142	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R145	1-216-023-00	METAL CHIP 82 5% 1/10W	
R146	1-216-023-00	METAL CHIP 82 5% 1/10W	
R149	1-216-023-00	METAL CHIP 82 5% 1/10W	
R150	1-216-023-00	METAL CHIP 82 5% 1/10W	
R151	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R153	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R155	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R156	1-216-162-00	METAL GLAZE 33 5% 1/8W	
R157	1-216-162-00	METAL GLAZE 33 5% 1/8W	

Ref. No.	Part No.	Description			Remark
R158	1-216-162-00	METAL GLAZE	33	5%	1/8W
R159	1-216-162-00	METAL GLAZE	33	5%	1/8W
R161	1-216-162-00	METAL GLAZE	33	5%	1/8W
R163	1-216-162-00	METAL GLAZE	33	5%	1/8W
R165	1-216-162-00	METAL GLAZE	33	5%	1/8W
R167	1-216-162-00	METAL GLAZE	33	5%	1/8W
R169	1-216-162-00	METAL GLAZE	33	5%	1/8W
R171	1-216-162-00	METAL GLAZE	33	5%	1/8W
R173	1-216-162-00	METAL GLAZE	33	5%	1/8W
R175	1-216-162-00	METAL GLAZE	33	5%	1/8W
R177	1-216-162-00	METAL GLAZE	33	5%	1/8W
R179	1-216-162-00	METAL GLAZE	33	5%	1/8W
R181	1-216-162-00	METAL GLAZE	33	5%	1/8W
R201	1-216-073-00	METAL CHIP	10K	5%	1/10W
R202	1-216-073-00	METAL CHIP	10K	5%	1/10W
R203	1-216-023-00	METAL CHIP	82	5%	1/10W
R204	1-216-023-00	METAL CHIP	82	5%	1/10W
R205	1-216-021-00	METAL CHIP	68	5%	1/10W
R206	1-216-021-00	METAL CHIP	68	5%	1/10W
R207	1-216-023-00	METAL CHIP	82	5%	1/10W
R208	1-216-023-00	METAL CHIP	82	5%	1/10W
R211	1-216-023-00	METAL CHIP	82	5%	1/10W
R212	1-216-023-00	METAL CHIP	82	5%	1/10W
R215	1-216-023-00	METAL CHIP	82	5%	1/10W
R216	1-216-023-00	METAL CHIP	82	5%	1/10W
R221	1-216-023-00	METAL CHIP	82	5%	1/10W
R222	1-216-023-00	METAL CHIP	82	5%	1/10W
R225	1-216-023-00	METAL CHIP	82	5%	1/10W
R226	1-216-023-00	METAL CHIP	82	5%	1/10W
R227	1-216-162-00	METAL GLAZE	33	5%	1/8W
R229	1-216-162-00	METAL GLAZE	33	5%	1/8W
R233	1-216-023-00	METAL CHIP	82	5%	1/10W
R234	1-216-023-00	METAL CHIP	82	5%	1/10W
R237	1-216-023-00	METAL CHIP	82	5%	1/10W
R238	1-216-023-00	METAL CHIP	82	5%	1/10W
R239	1-216-162-00	METAL GLAZE	33	5%	1/8W
R240	1-216-162-00	METAL GLAZE	33	5%	1/8W
R241	1-216-162-00	METAL GLAZE	33	5%	1/8W
R242	1-216-162-00	METAL GLAZE	33	5%	1/8W
R245	1-216-023-00	METAL CHIP	82	5%	1/10W
R246	1-216-023-00	METAL CHIP	82	5%	1/10W
R249	1-216-023-00	METAL CHIP	82	5%	1/10W
R250	1-216-023-00	METAL CHIP	82	5%	1/10W
R251	1-216-162-00	METAL GLAZE	33	5%	1/8W
R253	1-216-162-00	METAL GLAZE	33	5%	1/8W
R255	1-216-162-00	METAL GLAZE	33	5%	1/8W
R256	1-216-162-00	METAL GLAZE	33	5%	1/8W
R257	1-216-162-00	METAL GLAZE	33	5%	1/8W
R258	1-216-162-00	METAL GLAZE	33	5%	1/8W

Ref. No.	Part No.	Description			Remark
R259	1-216-162-00	METAL GLAZE	33	5%	1/8W
R261	1-216-162-00	METAL GLAZE	33	5%	1/8W
R263	1-216-162-00	METAL GLAZE	33	5%	1/8W
R265	1-216-162-00	METAL GLAZE	33	5%	1/8W
R267	1-216-162-00	METAL GLAZE	33	5%	1/8W
R268	1-216-162-00	METAL GLAZE	33	5%	1/8W
R269	1-216-162-00	METAL GLAZE	33	5%	1/8W
R271	1-216-162-00	METAL GLAZE	33	5%	1/8W
R273	1-216-162-00	METAL GLAZE	33	5%	1/8W
R275	1-216-162-00	METAL GLAZE	33	5%	1/8W
R277	1-216-162-00	METAL GLAZE	33	5%	1/8W
R279	1-216-162-00	METAL GLAZE	33	5%	1/8W
R281	1-216-162-00	METAL GLAZE	33	5%	1/8W
R283	1-216-162-00	METAL GLAZE	33	5%	1/8W
R301	1-216-073-00	METAL CHIP	10K	5%	1/10W
R302	1-216-073-00	METAL CHIP	10K	5%	1/10W
R303	1-216-023-00	METAL CHIP	82	5%	1/10W
R304	1-216-023-00	METAL CHIP	82	5%	1/10W
R305	1-216-021-00	METAL CHIP	68	5%	1/10W
R306	1-216-021-00	METAL CHIP	68	5%	1/10W
R307	1-216-023-00	METAL CHIP	82	5%	1/10W
R308	1-216-023-00	METAL CHIP	82	5%	1/10W
R311	1-216-023-00	METAL CHIP	82	5%	1/10W
R312	1-216-023-00	METAL CHIP	82	5%	1/10W
R317	1-216-023-00	METAL CHIP	82	5%	1/10W
R318	1-216-023-00	METAL CHIP	82	5%	1/10W
R321	1-216-023-00	METAL CHIP	82	5%	1/10W
R322	1-216-023-00	METAL CHIP	82	5%	1/10W
R323	1-216-162-00	METAL GLAZE	33	5%	1/8W
R325	1-216-162-00	METAL GLAZE	33	5%	1/8W
R329	1-216-023-00	METAL CHIP	82	5%	1/10W
R330	1-216-023-00	METAL CHIP	82	5%	1/10W
R333	1-216-023-00	METAL CHIP	82	5%	1/10W
R334	1-216-023-00	METAL CHIP	82	5%	1/10W
R335	1-216-162-00	METAL GLAZE	33	5%	1/8W
R336	1-216-162-00	METAL GLAZE	33	5%	1/8W
R337	1-216-162-00	METAL GLAZE	33	5%	1/8W
R338	1-216-162-00	METAL GLAZE	33	5%	1/8W
R341	1-216-023-00	METAL CHIP	82	5%	1/10W
R342	1-216-023-00	METAL CHIP	82	5%	1/10W
R345	1-216-023-00	METAL CHIP	82	5%	1/10W
R346	1-216-023-00	METAL CHIP	82	5%	1/10W
R347	1-216-162-00	METAL GLAZE	33	5%	1/8W
R349	1-216-162-00	METAL GLAZE	33	5%	1/8W
R351	1-216-162-00	METAL GLAZE	33	5%	1/8W
R352	1-216-162-00	METAL GLAZE	33	5%	1/8W
R353	1-216-162-00	METAL GLAZE	33	5%	1/8W
R354	1-216-162-00	METAL GLAZE	33	5%	1/8W
R355	1-216-162-00	METAL GLAZE	33	5%	1/8W

Ref. No.	Part No.	Description				Remark
R356	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R357	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R358	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R359	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R361	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R363	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R365	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R367	1-216-013-00	METAL CHIP	33	5%	1/10W	
R368	1-216-013-00	METAL CHIP	33	5%	1/10W	
R369	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R371	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R373	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R375	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R377	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R379	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R381	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R383	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R401	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R402	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R403	1-216-023-00	METAL CHIP	82	5%	1/10W	
R404	1-216-023-00	METAL CHIP	82	5%	1/10W	
R405	1-216-023-00	METAL CHIP	82	5%	1/10W	
R406	1-216-023-00	METAL CHIP	82	5%	1/10W	
R407	1-216-023-00	METAL CHIP	82	5%	1/10W	
R408	1-216-023-00	METAL CHIP	82	5%	1/10W	
R411	1-216-023-00	METAL CHIP	82	5%	1/10W	
R412	1-216-023-00	METAL CHIP	82	5%	1/10W	
R417	1-216-023-00	METAL CHIP	82	5%	1/10W	
R418	1-216-023-00	METAL CHIP	82	5%	1/10W	
R421	1-216-023-00	METAL CHIP	82	5%	1/10W	
R422	1-216-023-00	METAL CHIP	82	5%	1/10W	
R423	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R425	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R429	1-216-023-00	METAL CHIP	82	5%	1/10W	
R430	1-216-023-00	METAL CHIP	82	5%	1/10W	
R433	1-216-023-00	METAL CHIP	82	5%	1/10W	
R434	1-216-023-00	METAL CHIP	82	5%	1/10W	
R435	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R436	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R437	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R438	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R441	1-216-023-00	METAL CHIP	82	5%	1/10W	
R442	1-216-023-00	METAL CHIP	82	5%	1/10W	
R445	1-216-023-00	METAL CHIP	82	5%	1/10W	
R446	1-216-023-00	METAL CHIP	82	5%	1/10W	
R447	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R449	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R451	1-216-162-00	METAL GLAZE	33	5%	1/8W	

Ref. No.	Part No.	Description				Remark
R452	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R453	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R454	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R455	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R456	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R457	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R458	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R459	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R461	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R463	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R465	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R467	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R469	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R471	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R473	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R475	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R477	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R479	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R481	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R501	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R503	1-216-023-00	METAL CHIP	82	5%	1/10W	
R504	1-216-023-00	METAL CHIP	82	5%	1/10W	
R505	1-216-023-00	METAL CHIP	82	5%	1/10W	
R506	1-216-023-00	METAL CHIP	82	5%	1/10W	
R507	1-216-023-00	METAL CHIP	82	5%	1/10W	
R508	1-216-023-00	METAL CHIP	82	5%	1/10W	
R511	1-216-023-00	METAL CHIP	82	5%	1/10W	
R512	1-216-023-00	METAL CHIP	82	5%	1/10W	
R517	1-216-023-00	METAL CHIP	82	5%	1/10W	
R518	1-216-023-00	METAL CHIP	82	5%	1/10W	
R521	1-216-023-00	METAL CHIP	82	5%	1/10W	
R522	1-216-023-00	METAL CHIP	82	5%	1/10W	
R523	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R525	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R529	1-216-023-00	METAL CHIP	82	5%	1/10W	
R530	1-216-023-00	METAL CHIP	82	5%	1/10W	
R533	1-216-023-00	METAL CHIP	82	5%	1/10W	
R534	1-216-023-00	METAL CHIP	82	5%	1/10W	
R537	1-216-023-00	METAL CHIP	82	5%	1/10W	
R538	1-216-023-00	METAL CHIP	82	5%	1/10W	
R541	1-216-023-00	METAL CHIP	82	5%	1/10W	
R542	1-216-023-00	METAL CHIP	82	5%	1/10W	
R543	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R545	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R547	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R548	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R549	1-216-162-00	METAL GLAZE	33	5%	1/8W	
R550	1-216-162-00	METAL GLAZE	33	5%	1/8W	

Ref. No.	Part No.	Description			Remark
R551	1-216-162-00	METAL GLAZE	33	5%	1/8W
R553	1-216-162-00	METAL GLAZE	33	5%	1/8W
R555	1-216-162-00	METAL GLAZE	33	5%	1/8W
R557	1-216-162-00	METAL GLAZE	33	5%	1/8W
R559	1-216-162-00	METAL GLAZE	33	5%	1/8W
R561	1-216-162-00	METAL GLAZE	33	5%	1/8W
R563	1-216-162-00	METAL GLAZE	33	5%	1/8W
R565	1-216-162-00	METAL GLAZE	33	5%	1/8W
R567	1-216-162-00	METAL GLAZE	33	5%	1/8W
R569	1-216-162-00	METAL GLAZE	33	5%	1/8W
R571	1-216-162-00	METAL GLAZE	33	5%	1/8W
R573	1-216-162-00	METAL GLAZE	33	5%	1/8W
R601	1-216-073-00	METAL CHIP	10K	5%	1/10W
R602	1-216-073-00	METAL CHIP	10K	5%	1/10W
R603	1-216-023-00	METAL CHIP	82	5%	1/10W
R604	1-216-023-00	METAL CHIP	82	5%	1/10W
R605	1-216-021-00	METAL CHIP	68	5%	1/10W
R606	1-216-021-00	METAL CHIP	68	5%	1/10W
R607	1-216-023-00	METAL CHIP	82	5%	1/10W
R608	1-216-023-00	METAL CHIP	82	5%	1/10W
R611	1-216-023-00	METAL CHIP	82	5%	1/10W
R612	1-216-023-00	METAL CHIP	82	5%	1/10W
R617	1-216-023-00	METAL CHIP	82	5%	1/10W
R618	1-216-023-00	METAL CHIP	82	5%	1/10W
R619	1-216-162-00	METAL GLAZE	33	5%	1/8W
R621	1-216-162-00	METAL GLAZE	33	5%	1/8W
R625	1-216-023-00	METAL CHIP	82	5%	1/10W
R626	1-216-023-00	METAL CHIP	82	5%	1/10W
R629	1-216-023-00	METAL CHIP	82	5%	1/10W
R630	1-216-023-00	METAL CHIP	82	5%	1/10W
R633	1-216-023-00	METAL CHIP	82	5%	1/10W
R634	1-216-023-00	METAL CHIP	82	5%	1/10W
R635	1-216-162-00	METAL GLAZE	33	5%	1/8W
R637	1-216-162-00	METAL GLAZE	33	5%	1/8W
R639	1-216-162-00	METAL GLAZE	33	5%	1/8W
R640	1-216-162-00	METAL GLAZE	33	5%	1/8W
R641	1-216-162-00	METAL GLAZE	33	5%	1/8W
R642	1-216-162-00	METAL GLAZE	33	5%	1/8W
R643	1-216-162-00	METAL GLAZE	33	5%	1/8W
R645	1-216-162-00	METAL GLAZE	33	5%	1/8W
R647	1-216-162-00	METAL GLAZE	33	5%	1/8W
R649	1-216-162-00	METAL GLAZE	33	5%	1/8W
R651	1-216-162-00	METAL GLAZE	33	5%	1/8W
R653	1-216-162-00	METAL GLAZE	33	5%	1/8W
R655	1-216-162-00	METAL GLAZE	33	5%	1/8W
R657	1-216-162-00	METAL GLAZE	33	5%	1/8W
R659	1-216-162-00	METAL GLAZE	33	5%	1/8W
R661	1-216-162-00	METAL GLAZE	33	5%	1/8W
R663	1-216-162-00	METAL GLAZE	33	5%	1/8W
R665	1-216-162-00	METAL GLAZE	33	5%	1/8W
R701	1-216-073-00	METAL CHIP	10K	5%	1/10W
R702	1-216-073-00	METAL CHIP	10K	5%	1/10W
R703	1-216-023-00	METAL CHIP	82	5%	1/10W
R704	1-216-023-00	METAL CHIP	82	5%	1/10W
R705	1-216-023-00	METAL CHIP	82	5%	1/10W
R706	1-216-023-00	METAL CHIP	82	5%	1/10W
R707	1-216-023-00	METAL CHIP	82	5%	1/10W
R708	1-216-023-00	METAL CHIP	82	5%	1/10W
R711	1-216-023-00	METAL CHIP	82	5%	1/10W
R712	1-216-023-00	METAL CHIP	82	5%	1/10W
R717	1-216-023-00	METAL CHIP	82	5%	1/10W
R718	1-216-023-00	METAL CHIP	82	5%	1/10W
R721	1-216-023-00	METAL CHIP	82	5%	1/10W
R722	1-216-023-00	METAL CHIP	82	5%	1/10W
R725	1-216-023-00	METAL CHIP	82	5%	1/10W
R726	1-216-023-00	METAL CHIP	82	5%	1/10W
R729	1-216-023-00	METAL CHIP	82	5%	1/10W
R730	1-216-023-00	METAL CHIP	82	5%	1/10W
R731	1-216-162-00	METAL GLAZE	33	5%	1/8W
R732	1-216-162-00	METAL GLAZE	33	5%	1/8W
R733	1-216-162-00	METAL GLAZE	33	5%	1/8W
R734	1-216-162-00	METAL GLAZE	33	5%	1/8W
R735	1-216-162-00	METAL GLAZE	33	5%	1/8W
R737	1-216-162-00	METAL GLAZE	33	5%	1/8W
R739	1-216-162-00	METAL GLAZE	33	5%	1/8W
R741	1-216-162-00	METAL GLAZE	33	5%	1/8W
R743	1-216-162-00	METAL GLAZE	33	5%	1/8W
R745	1-216-162-00	METAL GLAZE	33	5%	1/8W
R747	1-216-162-00	METAL GLAZE	33	5%	1/8W
R749	1-216-162-00	METAL GLAZE	33	5%	1/8W
R801	1-216-073-00	METAL CHIP	10K	5%	1/10W
R802	1-216-073-00	METAL CHIP	10K	5%	1/10W
R803	1-216-023-00	METAL CHIP	82	5%	1/10W
R804	1-216-023-00	METAL CHIP	82	5%	1/10W
R805	1-216-023-00	METAL CHIP	82	5%	1/10W
R806	1-216-023-00	METAL CHIP	82	5%	1/10W
R807	1-216-023-00	METAL CHIP	82	5%	1/10W
R808	1-216-023-00	METAL CHIP	82	5%	1/10W
R809	1-216-023-00	METAL CHIP	82	5%	1/10W
R810	1-216-023-00	METAL CHIP	82	5%	1/10W
R817	1-216-023-00	METAL CHIP	82	5%	1/10W
R818	1-216-023-00	METAL CHIP	82	5%	1/10W
R821	1-216-023-00	METAL CHIP	82	5%	1/10W
R822	1-216-023-00	METAL CHIP	82	5%	1/10W
R825	1-216-023-00	METAL CHIP	82	5%	1/10W
R826	1-216-023-00	METAL CHIP	82	5%	1/10W
R829	1-216-023-00	METAL CHIP	82	5%	1/10W
R830	1-216-023-00	METAL CHIP	82	5%	1/10W

Ref. No.	Part No.	Description			Remark
R833	1-216-023-00	METAL CHIP	82	5%	1/10W
R834	1-216-023-00	METAL CHIP	82	5%	1/10W
R837	1-216-023-00	METAL CHIP	82	5%	1/10W
R838	1-216-023-00	METAL CHIP	82	5%	1/10W
R839	1-216-162-00	METAL GLAZE	33	5%	1/8W
R840	1-216-162-00	METAL GLAZE	33	5%	1/8W
R841	1-216-162-00	METAL GLAZE	33	5%	1/8W
R842	1-216-162-00	METAL GLAZE	33	5%	1/8W
R843	1-216-162-00	METAL GLAZE	33	5%	1/8W
R845	1-216-162-00	METAL GLAZE	33	5%	1/8W
R847	1-216-162-00	METAL GLAZE	33	5%	1/8W
R849	1-216-162-00	METAL GLAZE	33	5%	1/8W
R902	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R903	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R904	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R905	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R906	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R907	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R908	1-216-025-00	METAL CHIP	100	5%	1/10W
R909	1-216-025-00	METAL CHIP	100	5%	1/10W
R911	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R912	1-216-049-00	METAL CHIP	1K	5%	1/10W
R913	1-216-041-00	METAL CHIP	470	5%	1/10W
R914	1-216-073-00	METAL CHIP	10K	5%	1/10W
R915	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R916	1-216-025-00	METAL CHIP	100	5%	1/10W
R917	1-216-041-00	METAL CHIP	470	5%	1/10W
R918	1-216-025-00	METAL CHIP	100	5%	1/10W
R919	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R920	1-216-049-00	METAL CHIP	1K	5%	1/10W
R921	1-216-073-00	METAL CHIP	10K	5%	1/10W
R922	1-216-049-00	METAL CHIP	1K	5%	1/10W
R923	1-216-049-00	METAL CHIP	1K	5%	1/10W
R924	1-216-049-00	METAL CHIP	1K	5%	1/10W
R925	1-216-049-00	METAL CHIP	1K	5%	1/10W
R926	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R928	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R929	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R930	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R931	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R932	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R933	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R934	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R935	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R936	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R937	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R938	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R939	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R940	1-216-097-00	METAL CHIP	100K	5%	1/10W
R941	1-216-121-00	METAL CHIP	1M	5%	1/10W
R942	1-216-049-00	METAL CHIP	1K	5%	1/10W
R943	1-216-049-00	METAL CHIP	1K	5%	1/10W
R944	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R945	1-216-049-00	METAL CHIP	1K	5%	1/10W
R946	1-216-049-00	METAL CHIP	1K	5%	1/10W

< VARIABLE RESISTOR >

RV901	1-241-315-11	RES, VAR, SLIDE 5K/5K (MANUAL MIX)

< SWITCH >

S101	1-692-459-11	SWITCH (CHROA)
S102	1-692-459-11	SWITCH (A/V ADJ. MEMORY A)
S103	1-692-459-11	SWITCH (LINE A EFFECT ON/OFF)
S104	1-692-459-11	SWITCH (LINE B EFFECT ON/OFF)
S105	1-692-459-11	SWITCH (➡)
S106	1-692-459-11	SWITCH (▤)
S107	1-692-459-11	SWITCH (SQU ZOOM)
S108	1-692-459-11	SWITCH (LINE A 1)
S109	1-692-459-11	SWITCH (STOP)
S110	1-692-459-11	SWITCH (BIT DEFECT F)
S111	1-692-459-11	SWITCH (M SET)
S112	1-692-459-11	SWITCH (M 6)
S201	1-692-459-11	SWITCH (YNR A)
S202	1-692-459-11	SWITCH (CHRO B)
S203	1-692-459-11	SWITCH (A/V ADJ. MEMORY B)
S204	1-692-459-11	SWITCH (FIELD)
S205	1-692-459-11	SWITCH (BIT DEF)
S206	1-692-459-11	SWITCH (⬅)
S207	1-692-459-11	SWITCH (▦)
S208	1-692-459-11	SWITCH (RND 16)
S209	1-692-459-11	SWITCH (LINE A 2)
S210	1-692-459-11	SWITCH (START)
S211	1-692-459-11	SWITCH
S212	1-692-459-11	SWITCH (MIX)
S213	1-692-459-11	SWITCH (M DEL)
S214	1-692-459-11	SWITCH (M 7)
S301	1-692-459-11	SWITCH (CNR A)
S302	1-692-459-11	SWITCH (LUMI/H CEN A)
S303	1-692-459-11	SWITCH (A/V ADJ. MEMORY C)
S304	1-692-459-11	SWITCH (MULTI)
S305	1-692-459-11	SWITCH (MONO T)
S306	1-692-459-11	SWITCH (⬆)
S307	1-692-459-11	SWITCH (▩)
S308	1-692-459-11	SWITCH (★)
S309	1-692-459-11	SWITCH (LINE A 3)
S310	1-692-459-11	SWITCH (AUTO)

Ref. No.	Part No.	Description	Remark
S311	1-692-459-11	SWITCH (LINE A)	
S312	1-692-459-11	SWITCH (OPTION)	
S313	1-692-459-11	SWITCH (M 8)	
S401	1-692-459-11	SWITCH (V E A)	
S402	1-692-459-11	SWITCH (LUMI/H CEN B)	
S403	1-692-459-11	SWITCH (NORMAL)	
S404	1-692-459-11	SWITCH (TITLE INDEX)	
S405	1-692-459-11	SWITCH (AFTER)	
S406	1-692-459-11	SWITCH (⬇)	
S407	1-692-459-11	SWITCH (▣)	
S408	1-692-459-11	SWITCH (◈)	
S409	1-692-459-11	SWITCH (LINE B 1)	
S410	1-692-459-11	SWITCH (WHITE)	
S411	1-692-459-11	SWITCH (LINE B)	
S412	1-692-459-11	SWITCH (M 1)	
S413	1-692-459-11	SWITCH (M 9)	
S501	1-692-459-11	SWITCH (WHT BAL)	
S502	1-692-459-11	SWITCH (T SET)	
S503	1-692-459-11	SWITCH (FREEZE ON)	
S504	1-692-459-11	SWITCH (FREEZE OFF)	
S505	1-692-459-11	SWITCH (◧)	
S506	1-692-459-11	SWITCH (⇥)	
S507	1-692-459-11	SWITCH (ONE WAY)	
S508	1-692-459-11	SWITCH (LINE B 2)	
S509	1-692-459-11	SWITCH (BLACK)	
S510	1-692-459-11	SWITCH (M 2)	
S511	1-692-459-11	SWITCH (M 10)	
S601	1-692-459-11	SWITCH (YNR B)	
S602	1-692-459-11	SWITCH (AU LEV A)	
S603	1-692-459-11	SWITCH (T DEL)	
S604	1-692-459-11	SWITCH (MOSAIC -)	
S605	1-692-459-11	SWITCH (FLA FAST)	
S606	1-692-459-11	SWITCH (◨)	
S607	1-692-459-11	SWITCH (↪)	
S608	1-692-459-11	SWITCH (REVERSE)	
S609	1-692-459-11	SWITCH (LINE B 3)	
S610	1-692-459-11	SWITCH (MIX)	
S611	1-692-459-11	SWITCH (M 3)	
S612	1-692-459-11	SWITCH (START MEMORY)	
S701	1-692-459-11	SWITCH (CNR B)	
S702	1-692-459-11	SWITCH (AU LEV B)	
S703	1-692-459-11	SWITCH (RESET)	
S704	1-692-459-11	SWITCH (MOSAIC +)	
S705	1-692-459-11	SWITCH (FLA SLOW)	
S706	1-692-459-11	SWITCH (⬒)	
S707	1-692-459-11	SWITCH (♥)	
S708	1-692-459-11	SWITCH (BLACK INS)	
S709	1-692-459-11	SWITCH (FAST)	
S710	1-692-459-11	SWITCH (MONO F)	

Ref. No.	Part No.	Description	Remark
S711	1-692-459-11	SWITCH (M 4)	
S712	1-692-459-11	SWITCH (RECALL)	
S801	1-692-459-11	SWITCH (V E B)	
S802	1-692-459-11	SWITCH (AUX AUDIO)	
S803	1-692-459-11	SWITCH (NORMAL)	
S804	1-692-459-11	SWITCH (⬓)	
S805	1-692-459-11	SWITCH (◙)	
S806	1-692-459-11	SWITCH (POSITION)	
S807	1-692-459-11	SWITCH (SLOW)	
S808	1-692-459-11	SWITCH (MOSAIC F)	
S809	1-692-459-11	SWITCH (M 5)	
S901	1-692-446-11	SWITCH, TACTIL (LS20BB-2-T)	
S901		(POWER ON/STANDBY)	

< VIBRATOR >

X901	1-579-070-41	VIBRATOR, CRYSTAL (16MHz)	

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* A-7053-564-A DV-11 BOARD, COMPLETE

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(Ref. No. 8,000 Series)

< CAPACITOR >

C011	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C012	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C013	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C101	1-126-394-11	ELECT CHIP	10uF	20%	16V
C102	1-126-394-11	ELECT CHIP	10uF	20%	16V
C103	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C104	1-126-394-11	ELECT CHIP	10uF	20%	16V
C105	1-126-394-11	ELECT CHIP	10uF	20%	16V
C106	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C107	1-126-394-11	ELECT CHIP	10uF	20%	16V
C108	1-126-394-11	ELECT CHIP	10uF	20%	16V
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C110	1-126-394-11	ELECT CHIP	10uF	20%	16V
C111	1-126-394-11	ELECT CHIP	10uF	20%	16V
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C113	1-163-098-00	CERAMIC CHIP	16PF	5%	50V
C114	1-163-110-00	CERAMIC CHIP	51PF	5%	50V
C115	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C116	1-163-220-11	CERAMIC CHIP	3PF	0.25PF	50V
C117	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C118	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C119	1-126-394-11	ELECT CHIP	10uF	20%	16V
C120	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C121	1-126-394-11	ELECT CHIP	10uF	20%	16V
C122	1-126-394-11	ELECT CHIP	10uF	20%	16V
C123	1-163-038-00	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description		Remark	
C124	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C125	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C126	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C127	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C128	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C129	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C130	1-126-394-11	ELECT CHIP	10uF	20%	16V
C131	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C132	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C133	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C134	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C135	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C136	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C137	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C138	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C139	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C140	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C141	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C142	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C143	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C144	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C145	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C146	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C147	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C148	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C149	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C151	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C152	1-126-394-11	ELECT CHIP	10uF	20%	16V
C153	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C154	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C155	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C156	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C157	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C158	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C159	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C160	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C161	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C162	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C163	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C164	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C165	1-126-394-11	ELECT CHIP	10uF	20%	16V
C166	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C167	1-126-394-11	ELECT CHIP	10uF	20%	16V
C168	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C169	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C170	1-163-017-00	CERAMIC CHIP	0. 0047uF	5%	50V
C171	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C172	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C173	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C174	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C175	1-163-037-11	CERAMIC CHIP	0. 022uF	10%	25V
C176	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C177	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C178	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C179	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C180	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C181	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C182	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C183	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C184	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C185	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C191	1-128-065-11	ELECT CHIP	68uF	20%	10V
C192	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C193	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C194	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C201	1-126-394-11	ELECT CHIP	10uF	20%	16V
C202	1-126-394-11	ELECT CHIP	10uF	20%	16V
C203	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C204	1-126-394-11	ELECT CHIP	10uF	20%	16V
C205	1-126-394-11	ELECT CHIP	10uF	20%	16V
C206	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C207	1-126-394-11	ELECT CHIP	10uF	20%	16V
C208	1-126-394-11	ELECT CHIP	10uF	20%	16V
C209	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C210	1-126-394-11	ELECT CHIP	10uF	20%	16V
C211	1-126-394-11	ELECT CHIP	10uF	20%	16V
C212	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C213	1-163-098-00	CERAMIC CHIP	16PF	5%	50V
C214	1-163-110-00	CERAMIC CHIP	51PF	5%	50V
C215	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C216	1-163-220-11	CERAMIC CHIP	3PF	0. 25PF	50V
C217	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C218	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C219	1-126-394-11	ELECT CHIP	10uF	20%	16V
C220	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C221	1-126-394-11	ELECT CHIP	10uF	20%	16V
C222	1-126-394-11	ELECT CHIP	10uF	20%	16V
C223	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C224	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C225	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C226	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C227	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C228	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C229	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C230	1-126-394-11	ELECT CHIP	10uF	20%	16V
C231	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C232	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C233	1-163-038-00	CERAMIC CHIP	0. 1uF		25V

Ref. No.	Part No.	Description		Remark	
C234	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C235	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C236	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C237	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C238	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C239	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C240	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C241	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C242	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C243	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C244	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C245	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C246	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C247	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C248	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C249	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C251	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C252	1-126-394-11	ELECT CHIP	10uF	20%	16V
C253	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C254	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C255	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C256	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C257	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C258	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C259	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C260	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C261	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C262	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C263	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C264	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C265	1-126-394-11	ELECT CHIP	10uF	20%	16V
C266	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C267	1-126-394-11	ELECT CHIP	10uF	20%	16V
C268	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C269	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C270	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C271	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C272	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C273	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C274	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C275	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C276	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C277	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C278	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C279	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C280	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C281	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C282	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C283	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C284	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C285	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C291	1-128-065-11	ELECT CHIP	68uF	20%	10V
C292	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C293	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C294	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C301	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C302	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C303	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C304	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C305	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C306	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C307	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C308	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C309	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C310	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C311	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C312	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C313	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C314	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C315	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C316	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C317	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C318	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C319	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C320	1-126-394-11	ELECT CHIP	10uF	20%	16V
C321	1-126-394-11	ELECT CHIP	10uF	20%	16V
C322	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C323	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C324	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C325	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C326	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C327	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C328	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C329	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C330	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C331	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C332	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C333	1-126-394-11	ELECT CHIP	10uF	20%	16V
C334	1-126-394-11	ELECT CHIP	10uF	20%	16V
C335	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C336	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C337	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C338	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C339	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C340	1-126-394-11	ELECT CHIP	10uF	20%	16V
C341	1-126-394-11	ELECT CHIP	10uF	20%	16V
C342	1-163-099-00	CERAMIC CHIP	18PF	5%	50V

Ref. No.	Part No.	Description		Remark	
C343	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C344	1-126-394-11	ELECT CHIP	10uF	20%	16V
C345	1-126-394-11	ELECT CHIP	10uF	20%	16V
C346	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C347	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C348	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C349	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C350	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C351	1-126-394-11	ELECT CHIP	10uF	20%	16V
C352	1-126-394-11	ELECT CHIP	10uF	20%	16V
C353	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C354	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C355	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C356	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C357	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C358	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C359	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C360	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C361	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C362	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C363	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C364	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C365	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C366	1-128-065-11	ELECT CHIP	68uF	20%	10V
C367	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C368	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C369	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C371	1-128-065-11	ELECT CHIP	68uF	20%	10V
C372	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C373	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C375	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C376	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C377	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C378	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C379	1-128-065-11	ELECT CHIP	68uF	20%	10V
C380	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C381	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C382	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C383	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C384	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C385	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C386	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C401	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C402	1-126-394-11	ELECT CHIP	10uF	20%	16V
C405	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C406	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C407	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C408	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C413	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C414	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C416	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C422	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C423	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C434	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C443	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C445	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C446	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C448	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C449	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C450	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C451	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C452	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C453	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C490	1-126-394-11	ELECT CHIP	10uF	20%	16V
C491	1-126-394-11	ELECT CHIP	10uF	20%	16V
C502	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C503	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C504	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C505	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C506	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C507	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C508	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C509	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C510	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C511	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C512	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C513	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C514	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C515	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C516	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C517	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C518	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C519	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C520	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C521	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C522	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C523	1-126-394-11	ELECT CHIP	10uF	20%	16V
C524	1-126-394-11	ELECT CHIP	10uF	20%	16V
C525	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C526	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C527	1-126-394-11	ELECT CHIP	10uF	20%	16V
C528	1-126-394-11	ELECT CHIP	10uF	20%	16V
C532	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C533	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C534	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C535	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C536	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C537	1-163-038-00	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C538	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C539	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C540	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C541	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C542	1-163-222-11	CERAMIC CHIP	5PF	0. 25PF	50V
C543	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C544	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C545	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C546	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C547	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C548	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C549	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C550	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C551	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C552	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C553	1-126-394-11	ELECT CHIP	10uF	20%	16V
C554	1-126-394-11	ELECT CHIP	10uF	20%	16V
C555	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C556	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C557	1-126-394-11	ELECT CHIP	10uF	20%	16V
C558	1-126-394-11	ELECT CHIP	10uF	20%	16V
C561	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C562	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C563	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C564	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C565	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C566	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C567	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C568	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C569	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C570	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C571	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C572	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C573	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C574	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C575	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C576	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C577	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C578	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C579	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C580	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C581	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C582	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C583	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C584	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C585	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C586	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C587	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C588	1-163-222-11	CERAMIC CHIP	5PF	0. 25PF	50V

Ref. No.	Part No.	Description			Remark
C589	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C590	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C591	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C592	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C593	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C594	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C595	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C601	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C602	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C603	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C604	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C605	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C606	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C607	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C608	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C609	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C610	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C611	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C612	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C613	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C614	1-164-232-11	CERAMIC CHIP	0. 01uF		50V
C615	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C616	1-126-394-11	ELECT CHIP	10uF	20%	16V
C617	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C618	1-126-394-11	ELECT CHIP	10uF	20%	16V
C619	1-163-096-00	CERAMIC CHIP	13PF	5%	50V
C620	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C621	1-163-116-00	CERAMIC CHIP	91PF	5%	50V
C622	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C623	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C624	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C625	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C626	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C627	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C628	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C629	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C630	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C651	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C652	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C653	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C654	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C655	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C661	1-126-206-11	ELECT CHIP	100uF	20%	6. 3V
C662	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C663	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C664	1-164-005-11	CERAMIC CHIP	0. 47uF		25V
C665	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C671	1-163-275-11	CERAMIC CHIP	0. 001uF	5%	50V

Ref. No.	Part No.	Description			Remark
C672	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C673	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C674	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C675	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C676	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C677	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C678	1-126-394-11	ELECT CHIP	10uF	20%	16V
C681	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C682	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C683	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C684	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C685	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C686	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C687	1-128-065-11	ELECT CHIP	68uF	20%	10V
C688	1-128-065-11	ELECT CHIP	68uF	20%	10V
C691	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C701	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C702	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C704	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C705	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C706	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C707	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C708	1-126-394-11	ELECT CHIP	10uF	20%	16V
C709	1-126-394-11	ELECT CHIP	10uF	20%	16V
C710	1-126-394-11	ELECT CHIP	10uF	20%	16V
C711	1-126-394-11	ELECT CHIP	10uF	20%	16V
C712	1-126-394-11	ELECT CHIP	10uF	20%	16V
C713	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C714	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C715	1-126-394-11	ELECT CHIP	10uF	20%	16V
C716	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C717	1-126-394-11	ELECT CHIP	10uF	20%	16V
C718	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C719	1-126-394-11	ELECT CHIP	10uF	20%	16V
C720	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C721	1-126-394-11	ELECT CHIP	10uF	20%	16V
C722	1-126-394-11	ELECT CHIP	10uF	20%	16V
C723	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C725	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C726	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C727	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C728	1-126-394-11	ELECT CHIP	10uF	20%	16V
C729	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C767	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C768	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C769	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C770	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C771	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C772	1-163-251-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C773	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C774	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C775	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C776	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C777	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C778	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C779	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C780	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C781	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C782	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C783	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C784	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C785	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C786	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C787	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C788	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C921	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C941	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C961	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C962	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C963	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C964	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C965	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C966	1-126-394-11	ELECT CHIP	10uF	20%	16V
C991	1-163-220-11	CERAMIC CHIP	3PF	0.25PF	50V
C992	1-163-220-11	CERAMIC CHIP	3PF	0.25PF	50V
C993	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V
C994	1-163-217-11	CERAMIC CHIP	1PF	0.25PF	50V

< CONNECTOR >

Ref. No.	Part No.	Description
CN031	1-506-489-11	PIN, CONNECTOR 10P
CN101	1-580-723-11	CONNECTOR, BOARD TO BOARD 28P
CN102	1-580-723-11	CONNECTOR, BOARD TO BOARD 28P
CN110	1-506-490-21	PIN, CONNECTOR 11P
CN201	1-580-723-11	CONNECTOR, BOARD TO BOARD 28P
CN202	1-580-723-11	CONNECTOR, BOARD TO BOARD 28P
CN210	1-569-478-21	CONNECTOR, FPC 20P
CN301	1-506-488-11	PIN, CONNECTOR 9P
CN501	1-569-478-21	CONNECTOR, FPC 20P
CN502	1-569-478-21	CONNECTOR, FPC 20P

< VARIABLE CAPACITOR >

Ref. No.	Part No.	Description
CV301	1-141-311-11	CAP, TRIMMER 20PF
CV302	1-141-311-11	CAP, TRIMMER 20PF
CV303	1-141-311-11	CAP, TRIMMER 20PF

< DIODE >

Ref. No.	Part No.	Description
D101	8-719-800-76	DIODE 1SS226
D201	8-719-800-76	DIODE 1SS226

Ref. No.	Part No.	Description	Remark
D301	8-713-300-88	DIODE 1T33C-01	
D303	8-713-300-88	DIODE 1T33C-01	
D681	8-719-800-76	DIODE 1SS226	
D701	8-719-800-76	DIODE 1SS226	
D702	8-719-800-76	DIODE 1SS226	
D703	8-719-800-76	DIODE 1SS226	
D704	8-719-800-76	DIODE 1SS226	
D705	8-719-800-76	DIODE 1SS226	
D706	8-719-800-76	DIODE 1SS226	
D707	8-719-800-76	DIODE 1SS226	

< FERRITE BEAD >

Ref. No.	Part No.	Description	Remark
FB101	1-543-813-21	FILTER, EMI	
FB102	1-543-775-11	FILTER, EMI	
FB103	1-543-775-11	FILTER, EMI	
FB104	1-543-775-11	FILTER, EMI	
FB105	1-543-775-11	FILTER, EMI	
FB106	1-543-775-11	FILTER, EMI	
FB107	1-543-775-11	FILTER, EMI	
FB108	1-543-775-11	FILTER, EMI	
FB109	1-543-775-11	FILTER, EMI	
FB110	1-543-813-21	FILTER, EMI	
FB111	1-543-813-21	FILTER, EMI	
FB112	1-543-813-21	FILTER, EMI	
FB113	1-543-813-21	FILTER, EMI	
FB114	1-543-813-21	FILTER, EMI	
FB115	1-543-813-21	FILTER, EMI	
FB116	1-543-775-11	FILTER, EMI	
FB117	1-543-775-11	FILTER, EMI	
FB118	1-543-775-11	FILTER, EMI	
FB119	1-543-775-11	FILTER, EMI	
FB151	1-543-813-21	FILTER, EMI	
FB191	1-543-813-21	FILTER, EMI	
FB201	1-543-813-21	FILTER, EMI	
FB202	1-543-775-11	FILTER, EMI	
FB202	1-543-813-21	FILTER, EMI	
FB203	1-543-775-11	FILTER, EMI	
FB204	1-543-775-11	FILTER, EMI	
FB205	1-543-775-11	FILTER, EMI	
FB206	1-543-775-11	FILTER, EMI	
FB207	1-543-775-11	FILTER, EMI	
FB208	1-543-775-11	FILTER, EMI	
FB209	1-543-775-11	FILTER, EMI	
FB210	1-543-813-21	FILTER, EMI	
FB211	1-543-813-21	FILTER, EMI	
FB212	1-543-813-21	FILTER, EMI	
FB213	1-543-813-21	FILTER, EMI	
FB214	1-543-813-21	FILTER, EMI	
FB215	1-543-813-21	FILTER, EMI	
FB216	1-543-775-11	FILTER, EMI	
FB217	1-543-775-11	FILTER, EMI	
FB218	1-543-775-11	FILTER, EMI	
FB219	1-543-775-11	FILTER, EMI	
FB251	1-543-813-21	FILTER, EMI	
FB291	1-543-813-21	FILTER, EMI	
FB301	1-543-813-21	FILTER, EMI	
FB302	1-543-813-21	FILTER, EMI	
FB303	1-543-813-21	FILTER, EMI	
FB304	1-543-813-21	FILTER, EMI	
FB305	1-543-813-21	FILTER, EMI	
FB306	1-543-813-21	FILTER, EMI	
FB307	1-543-813-21	FILTER, EMI	
FB308	1-543-813-21	FILTER, EMI	
FB309	1-543-813-21	FILTER, EMI	
FB401	1-543-775-11	FILTER, EMI	
FB402	1-543-775-11	FILTER, EMI	
FB403	1-543-775-11	FILTER, EMI	
FB404	1-543-775-11	FILTER, EMI	
FB405	1-543-775-11	FILTER, EMI	
FB406	1-543-775-11	FILTER, EMI	
FB407	1-543-775-11	FILTER, EMI	
FB408	1-543-775-11	FILTER, EMI	
FB409	1-543-775-11	FILTER, EMI	
FB410	1-543-775-11	FILTER, EMI	
FB413	1-543-775-11	FILTER, EMI	
FB414	1-543-775-11	FILTER, EMI	
FB415	1-543-775-11	FILTER, EMI	
FB416	1-543-775-11	FILTER, EMI	
FB417	1-543-775-11	FILTER, EMI	
FB418	1-543-775-11	FILTER, EMI	
FB419	1-543-775-11	FILTER, EMI	
FB420	1-543-775-11	FILTER, EMI	
FB421	1-543-775-11	FILTER, EMI	
FB422	1-543-775-11	FILTER, EMI	
FB423	1-543-775-11	FILTER, EMI	
FB424	1-543-775-11	FILTER, EMI	
FB425	1-543-775-11	FILTER, EMI	
FB426	1-543-775-11	FILTER, EMI	
FB427	1-543-775-11	FILTER, EMI	
FB428	1-543-775-11	FILTER, EMI	
FB429	1-543-775-11	FILTER, EMI	
FB430	1-543-775-11	FILTER, EMI	
FB509	1-543-813-21	FILTER, EMI	
FB510	1-543-813-21	FILTER, EMI	
FB511	1-543-813-21	FILTER, EMI	
FB512	1-543-813-21	FILTER, EMI	
FB513	1-543-813-21	FILTER, EMI	

Ref. No.	Part No.	Description	Remark
FB514	1-543-813-21	FILTER, EMI	
FB515	1-543-813-21	FILTER, EMI	
FB516	1-543-813-21	FILTER, EMI	
FB651	1-543-813-21	FILTER, EMI	
FB652	1-543-813-21	FILTER, EMI	
FB661	1-543-813-21	FILTER, EMI	
FB662	1-543-813-21	FILTER, EMI	
FB671	1-543-813-21	FILTER, EMI	
FB672	1-543-813-21	FILTER, EMI	
FB701	1-543-813-21	FILTER, EMI	
FB702	1-543-813-21	FILTER, EMI	
FB703	1-543-813-21	FILTER, EMI	
FB704	1-543-813-21	FILTER, EMI	
FB705	1-543-813-21	FILTER, EMI	
FB717	1-543-813-21	FILTER, EMI	
FB731	1-543-813-21	FILTER, EMI	
FB732	1-543-775-11	FILTER, EMI	
FB733	1-543-775-11	FILTER, EMI	
FB734	1-543-775-11	FILTER, EMI	
FB735	1-543-775-11	FILTER, EMI	
FB736	1-543-813-21	FILTER, EMI	
FB737	1-543-813-21	FILTER, EMI	
FB738	1-543-813-21	FILTER, EMI	
FB739	1-543-813-21	FILTER, EMI	
FB740	1-543-813-21	FILTER, EMI	
FB741	1-543-813-21	FILTER, EMI	
FB742	1-543-813-21	FILTER, EMI	
FB743	1-543-813-21	FILTER, EMI	
FB744	1-543-813-21	FILTER, EMI	
FB745	1-543-813-21	FILTER, EMI	
FB746	1-543-813-21	FILTER, EMI	
FB747	1-543-813-21	FILTER, EMI	
FB748	1-543-813-21	FILTER, EMI	
FB749	1-543-813-21	FILTER, EMI	
FB750	1-543-813-21	FILTER, EMI	
FB751	1-543-813-21	FILTER, EMI	
FB752	1-543-813-21	FILTER, EMI	
FB753	1-543-813-21	FILTER, EMI	
FB754	1-543-813-21	FILTER, EMI	
FB755	1-543-813-21	FILTER, EMI	
FB756	1-543-813-21	FILTER, EMI	
FB757	1-543-813-21	FILTER, EMI	
FB758	1-543-813-21	FILTER, EMI	
FB759	1-543-813-21	FILTER, EMI	
FB760	1-543-813-21	FILTER, EMI	
FB761	1-543-813-21	FILTER, EMI	
FB762	1-543-813-21	FILTER, EMI	
FB763	1-543-813-21	FILTER, EMI	
FB764	1-543-813-21	FILTER, EMI	

Ref. No.	Part No.	Description	Remark
FB765	1-543-813-21	FILTER, EMI	
FB766	1-543-813-21	FILTER, EMI	
FB767	1-543-813-21	FILTER, EMI	
FB768	1-543-813-21	FILTER, EMI	
FB769	1-543-813-21	FILTER, EMI	
FB770	1-543-813-21	FILTER, EMI	
FB771	1-543-813-21	FILTER, EMI	
FB772	1-543-813-21	FILTER, EMI	
FB773	1-543-813-21	FILTER, EMI	
FB774	1-543-813-21	FILTER, EMI	
FB775	1-543-813-21	FILTER, EMI	
FB776	1-543-813-21	FILTER, EMI	
FB777	1-543-813-21	FILTER, EMI	
FB778	1-543-813-21	FILTER, EMI	
FB779	1-543-813-21	FILTER, EMI	
FB780	1-543-813-21	FILTER, EMI	
FB781	1-543-813-21	FILTER, EMI	
FB782	1-543-813-21	FILTER, EMI	
FB783	1-543-813-21	FILTER, EMI	
FB784	1-543-813-21	FILTER, EMI	
FB785	1-543-813-21	FILTER, EMI	
FB786	1-543-813-21	FILTER, EMI	
FB787	1-543-813-21	FILTER, EMI	
FB788	1-543-813-21	FILTER, EMI	
FB789	1-543-813-21	FILTER, EMI	
FB790	1-543-813-21	FILTER, EMI	
FB791	1-543-813-21	FILTER, EMI	
FB792	1-543-813-21	FILTER, EMI	
FB793	1-543-813-21	FILTER, EMI	
FB794	1-543-813-21	FILTER, EMI	
FB795	1-543-813-21	FILTER, EMI	
FB796	1-543-813-21	FILTER, EMI	
FB797	1-543-813-21	FILTER, EMI	
FB798	1-543-813-21	FILTER, EMI	
FB799	1-543-813-21	FILTER, EMI	
FB800	1-543-813-21	FILTER, EMI	
FB801	1-543-813-21	FILTER, EMI	
FB802	1-543-813-21	FILTER, EMI	
FB803	1-543-813-21	FILTER, EMI	
FB804	1-543-813-21	FILTER, EMI	
FB805	1-543-813-21	FILTER, EMI	
FB806	1-543-813-21	FILTER, EMI	
FB807	1-543-813-21	FILTER, EMI	
FB808	1-543-813-21	FILTER, EMI	
FB809	1-543-813-21	FILTER, EMI	
FB810	1-543-813-21	FILTER, EMI	
FB811	1-543-813-21	FILTER, EMI	
FB812	1-543-813-21	FILTER, EMI	

Ref. No.	Part No.	Description	Remark
		< FILTER >	
FL101	1-239-593-11	FILTER, LC	
FL201	1-239-593-11	FILTER, LC	
FL400	1-239-077-11	FILTER, EMI	
FL501	1-239-593-21	FILTER, LC	
FL531	1-239-593-21	FILTER, LC	
		< IC >	
IC037	8-759-169-09	IC M37702E4A225FP	
IC072	8-759-979-37	IC MSM72H017GS-VK	
IC075	8-759-055-75	IC uPD75104G-633-1B	
IC078	8-759-169-82	IC uPD78322GJ-512-5BJ	
IC101	8-752-052-58	IC CXA1410M	
IC102	8-752-334-55	IC CXD1175AM	
IC103	8-752-342-61	IC CXD2105AQ	
IC104	8-759-238-59	IC TC74HC4053AF(EL)	
IC105	8-752-053-21	IC CXA1211M	
IC106	8-752-039-34	IC CXA1208Q	
IC107	8-759-710-82	IC NJM2406F	
IC191	8-759-822-XX	IC L88MS05T-FA-TL	
IC201	8-752-052-58	IC CXA1410M	
IC202	8-752-340-75	IC CXK1206AM	
IC203	8-752-342-61	IC CXD2105AQ	
IC204	8-759-011-65	IC MC74HC4053F	
IC205	8-752-053-21	IC CXA1211M	
IC206	8-752-039-34	IC CXA1208Q	
IC207	8-759-710-82	IC NJM2406F	
IC291	8-759-822-XX	IC L88MS05T-FA-TL	
IC301	8-752-332-67	IC CXD1217M	
IC302	8-759-032-50	IC MC74HC241AF	
IC303	8-759-907-81	IC SN74LS221NS	
IC304	8-759-902-88	IC SN74LS123NS	
IC305	8-759-030-16	IC MC34182M	
IC306	8-759-907-81	IC SN74LS221NS	
IC307	8-759-242-74	IC TC7W04F	
IC308	8-759-902-88	IC SN74LS123NS	
IC309	8-759-242-74	IC TC7W04F	
IC310	8-759-030-16	IC MC34182M	
IC311	8-759-902-88	IC SN74LS123NS	
IC312	8-759-242-74	IC TC7W04F	
IC313	8-759-030-16	IC MC34182M	
IC314	8-752-306-51	IC CX23065A	
IC315	8-759-242-70	IC TC7WU04F	
IC316	8-759-032-23	IC MC74HC74AF-T2	
IC317	8-759-239-23	IC TC74HC86AF	
IC318	8-759-032-23	IC MC74HC74AF-T2	
IC319	8-759-032-01	IC MC74HC00AF	
IC320	8-759-032-23	IC MC74HC74AF-T2	
IC321	8-759-242-76	IC TC7W08F	
IC322	8-759-032-01	IC MC74HC00AF	
IC324	8-759-063-30	IC MC74HC374AF-T2	
IC325	8-759-032-20	IC MC74HC32AF	
IC391	8-759-822-XX	IC L88MS05T-FA-TL	
IC392	8-759-822-XX	IC L88MS05T-FA-TL	
IC393	8-759-822-XX	IC L88MS05T-FA-TL	
IC394	8-759-822-XX	IC L88MS05T-FA-TL	
IC395	8-759-822-XX	IC L88MS05T-FA-TL	
IC490	8-759-902-88	IC SN74LS123NS	
IC501	8-759-030-55	IC MC1496M	
IC502	8-759-030-55	IC MC1496M	
IC503	8-759-030-55	IC MC1496M	
IC504	8-759-030-55	IC MC1496M	
IC561	8-759-011-65	IC MC74HC4053F	
IC562	8-759-030-55	IC MC1496M	
IC601	8-759-011-65	IC MC74HC4053F	
IC602	8-759-603-56	IC M51272FP	
IC603	8-759-011-65	IC MC74HC4053F	
IC651	8-752-052-73	IC CXA1451M	
IC661	8-752-052-73	IC CXA1451M	
IC671	8-752-052-73	IC CXA1451M	
IC674	8-759-011-65	IC MC74HC4053F	
IC675	8-759-011-65	IC MC74HC4053F	
IC676	8-759-242-76	IC TC7W08F	
IC681	8-759-144-82	IC uPC2405HF	
IC682	8-759-245-79	IC M5F7905	
IC691	8-759-032-01	IC MC74HC00AF	
IC692	8-759-242-74	IC TC7W04F	
IC701	8-759-822-XX	IC L88MS05T-FA-TL	
IC702	8-759-032-11	IC MC74HC04AF	
IC703	8-759-937-56	IC S-8054ALB-LM-S	
IC704	8-759-044-65	IC M62352FP	
IC705	8-759-044-65	IC M62352FP	
IC706	8-759-044-65	IC M62352FP	
IC707	8-759-032-01	IC MC74HC00AF	
IC708	8-759-521-15	IC MAX232CWE	
IC709	8-759-551-68	IC M6M80021FP	
IC710	8-759-551-68	IC M6M80021FP	
IC711	8-759-938-68	IC CXD1095Q	
IC712	8-759-032-23	IC MC74HC74AF-T2	
IC713	8-759-032-23	IC MC74HC74AF-T2	
		< COIL >	
L101	1-410-388-31	INDUCTOR CHIP 39uH	
L102	1-410-388-31	INDUCTOR CHIP 39uH	
L103	1-410-658-41	INDUCTOR CHIP 220uH	
L104	1-410-387-11	INDUCTOR CHIP 33uH	
L105	1-410-658-41	INDUCTOR CHIP 220uH	

Ref. No.	Part No.	Description	Remark
L106	1-410-658-41	INDUCTOR CHIP 220uH	
L107	1-410-658-41	INDUCTOR CHIP 220uH	
L115	1-410-387-11	INDUCTOR CHIP 33uH	
L201	1-410-388-31	INDUCTOR CHIP 39uH	
L202	1-410-388-31	INDUCTOR CHIP 39uH	
L203	1-410-658-41	INDUCTOR CHIP 220uH	
L204	1-410-387-11	INDUCTOR CHIP 33uH	
L205	1-410-658-41	INDUCTOR CHIP 220uH	
L206	1-410-658-41	INDUCTOR CHIP 220uH	
L207	1-410-658-41	INDUCTOR CHIP 220uH	
L215	1-410-387-11	INDUCTOR CHIP 33uH	
L301	1-410-658-41	INDUCTOR CHIP 220uH	
L302	1-410-658-41	INDUCTOR CHIP 220uH	
L501	1-410-658-41	INDUCTOR CHIP 220uH	
L502	1-410-658-41	INDUCTOR CHIP 220uH	
L503	1-410-658-41	INDUCTOR CHIP 220uH	
L504	1-410-658-41	INDUCTOR CHIP 220uH	
L505	1-410-658-41	INDUCTOR CHIP 220uH	
L506	1-410-658-41	INDUCTOR CHIP 220uH	
L507	1-410-658-41	INDUCTOR CHIP 220uH	
L508	1-410-658-41	INDUCTOR CHIP 220uH	
L561	1-410-393-11	INDUCTOR CHIP 100uH	
L562	1-410-658-41	INDUCTOR CHIP 220uH	
L563	1-410-658-41	INDUCTOR CHIP 220uH	
L564	1-410-658-41	INDUCTOR CHIP 220uH	
L565	1-410-658-41	INDUCTOR CHIP 220uH	
L566	1-410-658-41	INDUCTOR CHIP 220uH	
L567	1-410-658-41	INDUCTOR CHIP 220uH	
L568	1-410-658-41	INDUCTOR CHIP 220uH	
L569	1-410-658-41	INDUCTOR CHIP 220uH	
L601	1-410-386-41	INDUCTOR CHIP 27uH	
L602	1-410-387-11	INDUCTOR CHIP 33uH	
L603	1-410-384-31	INDUCTOR CHIP 18uH	
L604	1-410-393-11	INDUCTOR CHIP 100uH	
L605	1-410-393-11	INDUCTOR CHIP 100uH	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q011	8-729-900-53	TRANSISTOR DTC114EK	
Q012	8-729-900-53	TRANSISTOR DTC114EK	
Q013	8-729-900-53	TRANSISTOR DTC114EK	
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q103	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q104	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q105	8-729-216-22	TRANSISTOR 2SA1162	
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q107	8-729-216-22	TRANSISTOR 2SA1162	
Q108	8-729-216-22	TRANSISTOR 2SA1162	
Q109	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q110	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q111	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q112	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q113	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q114	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q115	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q201	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q202	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q203	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q204	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q205	8-729-216-22	TRANSISTOR 2SA1162	
Q206	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q207	8-729-216-22	TRANSISTOR 2SA1162	
Q208	8-729-216-22	TRANSISTOR 2SA1162	
Q209	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q210	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q211	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q212	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q213	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q214	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q215	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q301	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q501	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q502	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q503	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q504	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q561	8-729-216-22	TRANSISTOR 2SA1162	
Q562	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q563	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q564	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q565	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q566	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q567	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q568	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q569	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q570	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q571	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q572	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q601	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q602	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q603	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q604	8-729-216-22	TRANSISTOR 2SA1162	
Q605	8-729-216-22	TRANSISTOR 2SA1162	
Q606	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q681	8-729-101-07	TRANSISTOR 2SB798-DL	
Q682	8-729-216-22	TRANSISTOR 2SA1162	

Ref. No.	Part No.	Description				Remark
Q701	8-729-140-47	TRANSISTOR	2SC3735-L-B35			
Q702	8-729-140-47	TRANSISTOR	2SC3735-L-B35			
Q703	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q704	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q705	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q706	8-729-216-22	TRANSISTOR	2SA1162			
Q707	8-729-216-22	TRANSISTOR	2SA1162			
Q708	8-729-216-22	TRANSISTOR	2SA1162			
Q921	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q922	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q923	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q924	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q941	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q942	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q943	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
Q944	8-729-120-28	TRANSISTOR	2SC1623-L5L6			
		< RESISTOR >				
R011	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R012	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R013	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R014	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R015	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R016	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R017	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R018	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R019	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R020	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R021	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R022	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R023	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R024	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R025	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R026	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R027	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R028	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R101	1-216-041-00	METAL CHIP	470	5%	1/10W	
R102	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R103	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R104	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R105	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R106	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R107	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R108	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W	
R109	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R110	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R111	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R112	1-216-041-00	METAL CHIP	470	5%	1/10W	
R113	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W	
R114	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R115	1-216-041-00	METAL CHIP	470	5%	1/10W	
R116	1-216-041-00	METAL CHIP	470	5%	1/10W	
R117	1-216-017-00	METAL CHIP	47	5%	1/10W	
R118	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R119	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R120	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R121	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R122	1-216-664-11	METAL CHIP	3.6K	0.5%	1/10W	
R123	1-216-664-11	METAL CHIP	3.6K	0.5%	1/10W	
R124	1-216-635-11	METAL CHIP	220	0.5%	1/10W	
R125	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R126	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R127	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R128	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R129	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R130	1-216-041-00	METAL CHIP	470	5%	1/10W	
R131	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R132	1-216-041-00	METAL CHIP	470	5%	1/10W	
R133	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R134	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W	
R135	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R136	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R137	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W	
R138	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R139	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R140	1-216-041-00	METAL CHIP	470	5%	1/10W	
R141	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W	
R142	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R143	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W	
R144	1-216-041-00	METAL CHIP	470	5%	1/10W	
R145	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R146	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R147	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R148	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R149	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R149	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W	
R150	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R151	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R152	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R153	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R154	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R155	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R156	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R157	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R158	1-216-067-00	METAL CHIP	5.6K	5%	1/10W	
R160	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R161	1-216-648-11	METAL CHIP	750	0.5%	1/10W	

Ref. No.	Part No.	Description			Remark
R162	1-216-035-00	METAL CHIP	270	5%	1/10W
R163	1-216-648-11	METAL CHIP	750	0.5%	1/10W
R164	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R165	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R166	1-216-081-00	METAL CHIP	22K	5%	1/10W
R167	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W
R168	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R169	1-216-041-00	METAL CHIP	470	5%	1/10W
R170	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R191	1-216-073-00	METAL CHIP	10K	5%	1/10W
R192	1-216-105-00	METAL CHIP	220K	5%	1/10W
R201	1-216-041-00	METAL CHIP	470	5%	1/10W
R202	1-216-049-00	METAL CHIP	1K	5%	1/10W
R203	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R204	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R205	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R206	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R207	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R208	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W
R209	1-216-049-00	METAL CHIP	1K	5%	1/10W
R210	1-216-121-00	METAL CHIP	1M	5%	1/10W
R211	1-216-073-00	METAL CHIP	10K	5%	1/10W
R212	1-216-041-00	METAL CHIP	470	5%	1/10W
R213	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W
R214	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R215	1-216-041-00	METAL CHIP	470	5%	1/10W
R216	1-216-041-00	METAL CHIP	470	5%	1/10W
R217	1-216-017-00	METAL CHIP	47	5%	1/10W
R218	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R219	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R220	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R221	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R222	1-216-664-11	METAL CHIP	3.6K	0.5%	1/10W
R223	1-216-664-11	METAL CHIP	3.6K	0.5%	1/10W
R224	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R225	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R226	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R227	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W
R228	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R229	1-216-049-00	METAL CHIP	1K	5%	1/10W
R230	1-216-041-00	METAL CHIP	470	5%	1/10W
R231	1-216-049-00	METAL CHIP	1K	5%	1/10W
R232	1-216-041-00	METAL CHIP	470	5%	1/10W
R233	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R234	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W
R235	1-216-644-11	METAL CHIP	510	0.5%	1/10W
R236	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R237	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W
R238	1-216-644-11	METAL CHIP	510	0.5%	1/10W
R239	1-216-644-11	METAL CHIP	510	0.5%	1/10W
R240	1-216-041-00	METAL CHIP	470	5%	1/10W
R241	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W
R242	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R243	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W
R244	1-216-041-00	METAL CHIP	470	5%	1/10W
R245	1-216-644-11	METAL CHIP	510	0.5%	1/10W
R246	1-216-644-11	METAL CHIP	510	0.5%	1/10W
R247	1-216-644-11	METAL CHIP	510	0.5%	1/10W
R248	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R249	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W
R250	1-216-049-00	METAL CHIP	1K	5%	1/10W
R251	1-216-049-00	METAL CHIP	1K	5%	1/10W
R252	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R253	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R254	1-216-097-00	METAL CHIP	100K	5%	1/10W
R255	1-216-073-00	METAL CHIP	10K	5%	1/10W
R256	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R257	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R258	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R259	1-216-041-00	METAL CHIP	470	5%	1/10W
R260	1-216-073-00	METAL CHIP	10K	5%	1/10W
R261	1-216-648-11	METAL CHIP	750	0.5%	1/10W
R262	1-216-035-00	METAL CHIP	270	5%	1/10W
R263	1-216-648-11	METAL CHIP	750	0.5%	1/10W
R264	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R265	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R266	1-216-081-00	METAL CHIP	22K	5%	1/10W
R267	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W
R268	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R269	1-216-041-00	METAL CHIP	470	5%	1/10W
R270	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R291	1-216-073-00	METAL CHIP	10K	5%	1/10W
R292	1-216-105-00	METAL CHIP	220K	5%	1/10W
R301	1-216-295-00	METAL CHIP	0	5%	1/10W
R302	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R303	1-216-295-00	METAL CHIP	0	5%	1/10W
R304	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R305	1-216-295-00	METAL CHIP	0	5%	1/10W
R307	1-216-049-00	METAL CHIP	1K	5%	1/10W
R308	1-216-085-00	METAL CHIP	33K	5%	1/10W
R309	1-216-085-00	METAL CHIP	33K	5%	1/10W
R310	1-216-085-00	METAL CHIP	33K	5%	1/10W
R311	1-216-121-00	METAL CHIP	1M	5%	1/10W
R312	1-216-085-00	METAL CHIP	33K	5%	1/10W
R313	1-216-085-00	METAL CHIP	33K	5%	1/10W
R314	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R315	1-216-085-00	METAL CHIP	33K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R316	1-216-085-00	METAL CHIP	33K	5%	1/10W
R317	1-216-085-00	METAL CHIP	33K	5%	1/10W
R318	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R319	1-216-077-00	METAL CHIP	15K	5%	1/10W
R320	1-216-077-00	METAL CHIP	15K	5%	1/10W
R321	1-216-658-11	METAL CHIP	2K	0.5%	1/10W
R322	1-216-658-11	METAL CHIP	2K	0.5%	1/10W
R323	1-216-049-00	METAL CHIP	1K	5%	1/10W
R324	1-216-049-00	METAL CHIP	1K	5%	1/10W
R325	1-216-025-00	METAL CHIP	100	5%	1/10W
R326	1-216-025-00	METAL CHIP	100	5%	1/10W
R327	1-216-073-00	METAL CHIP	10K	5%	1/10W
R328	1-216-073-00	METAL CHIP	10K	5%	1/10W
R329	1-216-049-00	METAL CHIP	1K	5%	1/10W
R330	1-216-049-00	METAL CHIP	1K	5%	1/10W
R331	1-216-081-00	METAL CHIP	22K	5%	1/10W
R332	1-216-081-00	METAL CHIP	22K	5%	1/10W
R335	1-216-077-00	METAL CHIP	15K	5%	1/10W
R336	1-216-077-00	METAL CHIP	15K	5%	1/10W
R337	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R338	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R339	1-216-049-00	METAL CHIP	1K	5%	1/10W
R340	1-216-049-00	METAL CHIP	1K	5%	1/10W
R341	1-216-025-00	METAL CHIP	100	5%	1/10W
R342	1-216-025-00	METAL CHIP	100	5%	1/10W
R343	1-216-073-00	METAL CHIP	10K	5%	1/10W
R344	1-216-073-00	METAL CHIP	10K	5%	1/10W
R345	1-216-073-00	METAL CHIP	10K	5%	1/10W
R346	1-216-073-00	METAL CHIP	10K	5%	1/10W
R347	1-216-049-00	METAL CHIP	1K	5%	1/10W
R348	1-216-049-00	METAL CHIP	1K	5%	1/10W
R349	1-216-295-00	METAL CHIP	0	5%	1/10W
R351	1-216-295-00	METAL CHIP	0	5%	1/10W
R353	1-216-295-00	METAL CHIP	0	5%	1/10W
R355	1-216-295-00	METAL CHIP	0	5%	1/10W
R357	1-216-658-11	METAL CHIP	2K	0.5%	1/10W
R358	1-216-658-11	METAL CHIP	2K	0.5%	1/10W
R359	1-216-049-00	METAL CHIP	1K	5%	1/10W
R360	1-216-049-00	METAL CHIP	1K	5%	1/10W
R361	1-216-025-00	METAL CHIP	100	5%	1/10W
R362	1-216-025-00	METAL CHIP	100	5%	1/10W
R363	1-216-073-00	METAL CHIP	10K	5%	1/10W
R364	1-216-073-00	METAL CHIP	10K	5%	1/10W
R365	1-216-073-00	METAL CHIP	10K	5%	1/10W
R366	1-216-073-00	METAL CHIP	10K	5%	1/10W
R377	1-216-073-00	METAL CHIP	10K	5%	1/10W
R378	1-216-073-00	METAL CHIP	10K	5%	1/10W
R379	1-216-085-00	METAL CHIP	33K	5%	1/10W
R380	1-216-085-00	METAL CHIP	33K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R381	1-216-085-00	METAL CHIP	33K	5%	1/10W
R382	1-216-085-00	METAL CHIP	33K	5%	1/10W
R383	1-216-049-00	METAL CHIP	1K	5%	1/10W
R384	1-216-025-00	METAL CHIP	100	5%	1/10W
R385	1-216-121-00	METAL CHIP	1M	5%	1/10W
R386	1-216-121-00	METAL CHIP	1M	5%	1/10W
R388	1-216-295-00	METAL CHIP	0	5%	1/10W
R391	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R392	1-216-025-00	METAL CHIP	100	5%	1/10W
R393	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R394	1-216-025-00	METAL CHIP	100	5%	1/10W
R395	1-216-073-00	METAL CHIP	10K	5%	1/10W
R396	1-216-073-00	METAL CHIP	10K	5%	1/10W
R397	1-216-073-00	METAL CHIP	10K	5%	1/10W
R398	1-216-073-00	METAL CHIP	10K	5%	1/10W
R399	1-216-073-00	METAL CHIP	10K	5%	1/10W
R400	1-216-085-00	METAL CHIP	33K	5%	1/10W
R401	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R402	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R403	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R404	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R405	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R406	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R407	1-216-073-00	METAL CHIP	10K	5%	1/10W
R408	1-216-073-00	METAL CHIP	10K	5%	1/10W
R409	1-216-295-00	METAL CHIP	0	5%	1/10W
R411	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R412	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R413	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R414	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R415	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R416	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R421	1-216-073-00	METAL CHIP	10K	5%	1/10W
R422	1-216-073-00	METAL CHIP	10K	5%	1/10W
R423	1-216-073-00	METAL CHIP	10K	5%	1/10W
R424	1-216-073-00	METAL CHIP	10K	5%	1/10W
R430	1-216-295-00	METAL CHIP	0	5%	1/10W
R437	1-216-121-00	METAL CHIP	1M	5%	1/10W
R451	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R452	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R453	1-216-073-00	METAL CHIP	10K	5%	1/10W
R454	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R455	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R456	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R461	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R462	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R463	1-216-073-00	METAL CHIP	10K	5%	1/10W
R464	1-216-651-11	METAL CHIP	1K	0.5%	1/10W
R465	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

Ref.No.	Part No.	Description				Remark
R466	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R490	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R491	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R501	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R502	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R503	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R504	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R505	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R506	1-216-041-00	METAL CHIP	470	5%	1/10W	
R507	1-216-041-00	METAL CHIP	470	5%	1/10W	
R509	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R510	1-216-675-11	METAL CHIP	10K	0.5%	1/10W	
R511	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R512	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R513	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R514	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R515	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W	
R516	1-216-041-00	METAL CHIP	470	5%	1/10W	
R517	1-216-041-00	METAL CHIP	470	5%	1/10W	
R519	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R520	1-216-675-11	METAL CHIP	10K	0.5%	1/10W	
R521	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R522	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R523	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R524	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R531	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R532	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R533	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R534	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R535	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R536	1-216-041-00	METAL CHIP	470	5%	1/10W	
R537	1-216-041-00	METAL CHIP	470	5%	1/10W	
R539	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R540	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R541	1-216-675-11	METAL CHIP	10K	0.5%	1/10W	
R542	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R543	1-216-644-11	METAL CHIP	510	0.5%	1/10W	
R544	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W	
R545	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R546	1-216-041-00	METAL CHIP	470	5%	1/10W	
R547	1-216-041-00	METAL CHIP	470	5%	1/10W	
R549	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R550	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R551	1-216-675-11	METAL CHIP	10K	0.5%	1/10W	
R552	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R553	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R554	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R561	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R562	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	

Ref.No.	Part No.	Description				Remark
R563	1-216-041-00	METAL CHIP	470	5%	1/10W	
R564	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R565	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R566	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R567	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R568	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R569	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R570	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R571	1-216-105-00	METAL CHIP	220K	5%	1/10W	
R572	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R573	1-216-658-11	METAL CHIP	2K	0.5%	1/10W	
R574	1-216-041-00	METAL CHIP	470	5%	1/10W	
R575	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R576	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R577	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R578	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R579	1-216-041-00	METAL CHIP	470	5%	1/10W	
R580	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R581	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R582	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R583	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R584	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R585	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R586	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R587	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R588	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R589	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R590	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R591	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R592	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R600	1-216-013-00	METAL CHIP	33	5%	1/10W	
R601	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R602	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R603	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R604	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R605	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R606	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R607	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R608	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R609	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R610	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R611	1-216-041-00	METAL CHIP	470	5%	1/10W	
R612	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R613	1-216-041-00	METAL CHIP	470	5%	1/10W	
R614	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R615	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R616	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R617	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	

Ref. No.	Part No.	Description				Remark
R618	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R619	1-216-041-00	METAL CHIP	470	5%	1/10W	
R620	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R621	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R622	1-216-675-11	METAL CHIP	10K	0.5%	1/10W	
R623	1-216-649-11	METAL CHIP	820	0.5%	1/10W	
R624	1-216-675-11	METAL CHIP	10K	0.5%	1/10W	
R625	1-216-041-00	METAL CHIP	470	5%	1/10W	
R626	1-216-041-00	METAL CHIP	470	5%	1/10W	
R627	1-216-041-00	METAL CHIP	470	5%	1/10W	
R628	1-216-041-00	METAL CHIP	470	5%	1/10W	
R629	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R630	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R631	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W	
R632	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W	
R633	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R634	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R635	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R636	1-216-665-11	METAL CHIP	3.9K	0.5%	1/10W	
R637	1-216-045-00	METAL CHIP	680	5%	1/10W	
R638	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R639	1-216-041-00	METAL CHIP	470	5%	1/10W	
R640	1-216-041-00	METAL CHIP	470	5%	1/10W	
R641	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R642	1-216-039-00	METAL CHIP	390	5%	1/10W	
R643	1-216-675-11	METAL CHIP	10K	0.5%	1/10W	
R644	1-216-041-00	METAL CHIP	470	5%	1/10W	
R645	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R646	1-216-651-11	METAL CHIP	1K	0.5%	1/10W	
R647	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W	
R648	1-216-656-11	METAL CHIP	1.6K	0.5%	1/10W	
R649	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R651	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R652	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R653	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R654	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R661	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R662	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R663	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R664	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R671	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R672	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R673	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R674	1-216-631-11	METAL CHIP	150	0.5%	1/10W	
R675	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R676	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R681	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R682	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R691	1-216-073-00	METAL CHIP	10K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R692	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R693	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R694	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R701	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R702	1-216-025-00	METAL CHIP	100	5%	1/10W	
R703	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R704	1-216-041-00	METAL CHIP	470	5%	1/10W	
R705	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R706	1-216-025-00	METAL CHIP	100	5%	1/10W	
R707	1-216-041-00	METAL CHIP	470	5%	1/10W	
R708	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R709	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R710	1-216-025-00	METAL CHIP	100	5%	1/10W	
R711	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R712	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R713	1-216-025-00	METAL CHIP	100	5%	1/10W	
R714	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R715	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W	
R716	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R717	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R718	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R719	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R720	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R721	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R722	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R723	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R724	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W	
R725	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R726	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R727	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R728	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R729	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R730	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R731	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R732	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R733	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R734	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R735	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R736	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R737	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R738	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R739	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R740	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R741	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R743	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R744	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R745	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R746	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R747	1-216-073-00	METAL CHIP	10K	5%	1/10W	

Ref. No.	Part No.	Description	Remark
R748	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R749	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R750	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R751	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R752	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R753	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R754	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R755	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R756	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R757	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R758	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R759	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R760	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R761	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R764	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R765	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R766	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R768	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R769	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R901	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R921	1-216-644-11	METAL CHIP 510 0.5% 1/10W	
R922	1-216-041-00	METAL CHIP 470 5% 1/10W	
R923	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R924	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R925	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R926	1-216-041-00	METAL CHIP 470 5% 1/10W	
R927	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R928	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R929	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R930	1-216-041-00	METAL CHIP 470 5% 1/10W	
R931	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R932	1-216-644-11	METAL CHIP 510 0.5% 1/10W	
R941	1-216-644-11	METAL CHIP 510 0.5% 1/10W	
R942	1-216-041-00	METAL CHIP 470 5% 1/10W	
R943	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R944	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R945	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R946	1-216-041-00	METAL CHIP 470 5% 1/10W	
R947	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R948	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R949	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R950	1-216-041-00	METAL CHIP 470 5% 1/10W	
R951	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R952	1-216-644-11	METAL CHIP 510 0.5% 1/10W	
R961	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R962	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R963	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R964	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R965	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R966	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R967	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R968	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R970	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R971	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R981	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R983	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R984	1-216-295-00	METAL CHIP 0 5% 1/10W	
R985	1-216-013-00	METAL CHIP 33 5% 1/10W	
R991	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R992	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R993	1-216-105-00	METAL CHIP 220K 5% 1/10W	
R994	1-216-105-00	METAL CHIP 220K 5% 1/10W	

< RELAY >

Ref. No.	Part No.	Description	Remark
RY681	1-515-833-11	RELAY (DC 12V 2A)	

< VIBRATOR >

Ref. No.	Part No.	Description	Remark
X016	1-579-070-41	VIBRATOR, CRYSTAL (16MHz)	
X075	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)	
X101	1-579-366-11	VIBRATOR, CRYSTAL (4.43MHz)	
X201	1-579-366-11	VIBRATOR, CRYSTAL (4.43MHz)	
X301	1-579-519-11	VIBRATOR, CRYSTAL (14.1875MHz)	
X302	1-579-780-21	VIBRATOR, CRYSTAL (17.73MHz)	
X303	1-579-780-21	VIBRATOR, CRYSTAL (17.73MHz)	

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* A-7071-819-A FS-67 BOARD, COMPLETE

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(Ref. No. 2,000 Series)

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
CN201	1-569-478-21	CONNECTOR, FPC 20P	

< DIODE >

Ref. No.	Part No.	Description	Remark
D201	8-719-106-43	DIODE RD9.1M-B1	
D202	8-719-106-43	DIODE RD9.1M-B1	
D203	8-719-106-43	DIODE RD9.1M-B1	
D204	8-719-106-43	DIODE RD9.1M-B1	
D205	8-719-106-43	DIODE RD9.1M-B1	
D206	8-719-106-43	DIODE RD9.1M-B1	
D207	8-719-106-43	DIODE RD9.1M-B1	
D208	8-719-106-43	DIODE RD9.1M-B1	

< JACK >

Ref. No.	Part No.	Description	Remark
J201	1-750-212-11	CONNECTOR (ROUND TYPE) 4P (S VIDEO/INPUT 3)	
J202	1-691-110-21	JACK, PIN 3P (VIDEO/AUDIO:L/R, INPUT 3)	

Ref. No.	Part No.	Description			Remark
		< COIL >			
L201	1-412-390-21	INDUCTOR CHIP	0uH		
L205	1-412-390-21	INDUCTOR CHIP	0uH		
L206	1-412-390-21	INDUCTOR CHIP	0uH		
L208	1-412-390-21	INDUCTOR CHIP	0uH		
L209	1-412-390-21	INDUCTOR CHIP	0uH		
L210	1-412-390-21	INDUCTOR CHIP	0uH		
L211	1-412-390-21	INDUCTOR CHIP	0uH		
L212	1-412-390-21	INDUCTOR CHIP	0uH		

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* A-7053-565-A MB-61 BOARD, COMPLETE

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(Ref.No. 7,000 Series)

< CAPACITOR >

Ref. No.	Part No.	Description			Remark
C001	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C002	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C101	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C102	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C103	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C104	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C105	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C106	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C107	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C108	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C121	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C122	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C123	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C124	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C125	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C126	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C127	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C131	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C132	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C133	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C134	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C135	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C136	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C137	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C138	1-126-193-11	ELECT	1uF	20%	50V
C139	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C140	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C141	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C142	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C143	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C144	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C145	1-164-699-11	CERAMIC CHIP	0.0033uF	5%	50V
C146	1-126-602-11	ELECT CHIP	3.3uF	20%	50V
C147	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C148	1-163-098-00	CERAMIC CHIP	16PF	5%	50V
C151	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C152	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C154	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C155	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C171	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C172	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C173	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C175	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C176	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C177	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C181	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C182	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C183	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C184	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C185	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C186	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C187	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C188	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C201	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C202	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C203	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C204	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C205	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C211	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C212	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C213	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C214	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C215	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C221	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C222	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C223	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C224	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C225	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C231	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C232	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C301	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C302	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C303	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C321	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C351	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C352	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C353	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C371	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C372	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C373	1-163-038-00	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C374	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C375	1-163-104-00	CERAMIC CHIP	30PF	5%	50V
C376	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C377	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C401	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C402	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C403	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C404	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C405	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C421	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C422	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C423	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C424	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C425	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C426	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C451	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C452	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C453	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C454	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C455	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C456	1-126-193-11	ELECT	1uF	20%	50V
C457	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C458	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C459	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C460	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C461	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C462	1-164-699-11	CERAMIC CHIP	0.0033uF	5%	50V
C463	1-126-602-11	ELECT CHIP	3.3uF	20%	50V
C464	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C465	1-163-098-00	CERAMIC CHIP	16PF	5%	50V
C471	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C491	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C492	1-164-232-11	CERAMIC CHIP	0.01uF		50V

< VARIABLE CAPACITOR >

Ref. No.	Part No.	Description	Remark
CN101	1-580-722-11	CONNECTOR, BOARD TO BOARD 28P	
CN201	1-580-722-11	CONNECTOR, BOARD TO BOARD 28P	

< TRIMMER >

Ref. No.	Part No.	Description	Remark
CV131	1-141-311-11	CAP, TRIMMER 20PF	
CV171	1-141-311-11	CAP, TRIMMER 20PF	
CV371	1-141-311-11	CAP, TRIMMER 20PF	
CV451	1-141-311-11	CAP, TRIMMER 20PF	

< DIODE >

Ref. No.	Part No.	Description		Remark
D131	8-713-300-88	DIODE	1T33C-01	
D171	8-713-300-88	DIODE	1T33C-01	
D181	8-719-104-34	DIODE	1S2836	
D371	8-713-300-88	DIODE	1T33C-01	
D451	8-713-300-88	DIODE	1T33C-01	
D491	8-719-104-34	DIODE	1S2836	

< FERRITE BEAD >

Ref. No.	Part No.	Description	Remark
FB010	1-412-390-21	INDUCTOR CHIP 0uH	
FB011	1-412-390-21	INDUCTOR CHIP 0uH	
FB012	1-412-390-21	INDUCTOR CHIP 0uH	
FB013	1-412-390-21	INDUCTOR CHIP 0uH	
FB014	1-412-390-21	INDUCTOR CHIP 0uH	
FB015	1-412-390-21	INDUCTOR CHIP 0uH	
FB016	1-412-390-21	INDUCTOR CHIP 0uH	
FB017	1-412-390-21	INDUCTOR CHIP 0uH	
FB018	1-412-390-21	INDUCTOR CHIP 0uH	
FB019	1-412-390-21	INDUCTOR CHIP 0uH	
FB020	1-412-390-21	INDUCTOR CHIP 0uH	
FB021	1-412-390-21	INDUCTOR CHIP 0uH	
FB022	1-412-390-21	INDUCTOR CHIP 0uH	
FB023	1-412-390-21	INDUCTOR CHIP 0uH	
FB024	1-412-390-21	INDUCTOR CHIP 0uH	
FB025	1-412-390-21	INDUCTOR CHIP 0uH	
FB026	1-412-390-21	INDUCTOR CHIP 0uH	
FB027	1-412-390-21	INDUCTOR CHIP 0uH	
FB028	1-412-390-21	INDUCTOR CHIP 0uH	
FB029	1-412-390-21	INDUCTOR CHIP 0uH	
FB030	1-412-390-21	INDUCTOR CHIP 0uH	
FB031	1-412-390-21	INDUCTOR CHIP 0uH	
FB051	1-412-390-21	INDUCTOR CHIP 0uH	
FB052	1-412-390-21	INDUCTOR CHIP 0uH	
FB053	1-412-390-21	INDUCTOR CHIP 0uH	
FB054	1-412-390-21	INDUCTOR CHIP 0uH	
FB055	1-412-390-21	INDUCTOR CHIP 0uH	
FB056	1-412-390-21	INDUCTOR CHIP 0uH	
FB057	1-412-390-21	INDUCTOR CHIP 0uH	
FB058	1-412-390-21	INDUCTOR CHIP 0uH	
FB059	1-412-390-21	INDUCTOR CHIP 0uH	
FB060	1-412-390-21	INDUCTOR CHIP 0uH	
FB061	1-412-390-21	INDUCTOR CHIP 0uH	
FB062	1-412-390-21	INDUCTOR CHIP 0uH	
FB063	1-412-390-21	INDUCTOR CHIP 0uH	
FB064	1-412-390-21	INDUCTOR CHIP 0uH	
FB065	1-412-390-21	INDUCTOR CHIP 0uH	
FB066	1-412-390-21	INDUCTOR CHIP 0uH	
FB067	1-412-390-21	INDUCTOR CHIP 0uH	
FB068	1-412-390-21	INDUCTOR CHIP 0uH	
FB069	1-412-390-21	INDUCTOR CHIP 0uH	
FB070	1-412-390-21	INDUCTOR CHIP 0uH	
FB071	1-412-390-21	INDUCTOR CHIP 0uH	
FB072	1-412-390-21	INDUCTOR CHIP 0uH	
FB073	1-412-390-21	INDUCTOR CHIP 0uH	

MB-61

Ref. No.	Part No.	Description	Remark
FB074	1-412-390-21	INDUCTOR CHIP 0uH	
FB101	1-543-813-21	FILTER, EMI	
FB102	1-543-813-21	FILTER, EMI	
FB103	1-543-813-21	FILTER, EMI	
FB121	1-543-813-21	FILTER, EMI	
FB122	1-543-813-21	FILTER, EMI	
FB123	1-543-813-21	FILTER, EMI	
FB133	1-543-813-21	FILTER, EMI	
FB171	1-543-813-21	FILTER, EMI	
FB181	1-543-813-21	FILTER, EMI	
FB201	1-543-813-21	FILTER, EMI	
FB211	1-543-813-21	FILTER, EMI	
FB212	1-543-813-21	FILTER, EMI	
FB221	1-543-813-21	FILTER, EMI	
FB222	1-543-813-21	FILTER, EMI	
FB231	1-543-813-21	FILTER, EMI	
FB371	1-543-813-21	FILTER, EMI	
FB372	1-543-813-21	FILTER, EMI	
FB401	1-543-813-21	FILTER, EMI	
FB421	1-543-813-21	FILTER, EMI	
FB471	1-543-813-21	FILTER, EMI	

< IC >

Ref. No.	Part No.	Description	Remark
IC101	8-752-334-55	IC CXD1175AM	
IC121	8-752-334-55	IC CXD1175AM	
IC131	8-759-987-20	IC CXD1229Q	
IC132	8-759-030-16	IC MC34182M	
IC151	8-759-710-82	IC NJM2406F	
IC152	8-759-907-81	IC SN74LS221NS	
IC153	8-759-032-23	IC MC74HC74AF-T2	
IC154	8-759-233-18	IC TC74HC374AF	
IC181	8-759-987-17	IC CXD1226Q	
IC201	8-752-340-75	IC CXK1206AM	
IC202	8-752-334-55	IC CXD1175AM	
IC211	8-752-340-75	IC CXK1206AM	
IC212	8-752-340-75	IC CXK1206AM	
IC221	8-752-340-75	IC CXK1206AM	
IC222	8-752-340-75	IC CXK1206AM	
IC301	8-759-987-19	IC CXD1228Q	
IC321	8-759-242-68	IC TC7W32F	
IC322	8-759-242-74	IC TC7W04F	
IC323	8-759-032-01	IC MC74HC00AF	
IC324	8-759-233-18	IC TC74HC374AF	
IC351	8-759-987-18	IC CXD1227Q	
IC352	8-759-242-76	IC TC7W08F	
IC353	8-759-035-93	IC SC7S32F	
IC371	8-752-306-51	IC CX23065A	
IC401	8-752-334-64	IC CXD1171M	
IC421	8-752-334-64	IC CXD1171M	
IC451	8-759-987-20	IC CXD1229Q	
IC471	8-759-242-74	IC TC7W04F	
IC472	8-759-233-18	IC TC74HC374AF	

< COIL >

Ref. No.	Part No.	Description	Remark
L131	1-410-393-11	INDUCTOR CHIP 100uH	
L132	1-410-377-31	INDUCTOR CHIP 4.7uH	
L451	1-410-377-31	INDUCTOR CHIP 4.7uH	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q131	8-729-216-22	TRANSISTOR 2SA1162	
Q171	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q371	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q401	8-729-216-22	TRANSISTOR 2SA1162	
Q421	8-729-216-22	TRANSISTOR 2SA1162	
Q491	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q492	8-729-216-22	TRANSISTOR 2SA1162	

< RESISTOR >

Ref. No.	Part No.	Description	Remark
R101	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
R102	1-216-671-11	METAL CHIP 6.8K 0.5% 1/10W	
R103	1-216-649-11	METAL CHIP 820 0.5% 1/10W	
R104	1-216-029-00	METAL CHIP 150 5% 1/10W	
R121	1-216-029-00	METAL CHIP 150 5% 1/10W	
R122	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R123	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R131	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R132	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R133	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R134	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R135	1-216-648-11	METAL CHIP 750 0.5% 1/10W	
R136	1-216-117-00	METAL CHIP 680K 5% 1/10W	
R137	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R138	1-216-021-00	METAL CHIP 68 5% 1/10W	
R139	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R140	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R141	1-216-019-00	METAL CHIP 56 5% 1/10W	
R142	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R143	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R144	1-216-025-00	METAL CHIP 100 5% 1/10W	
R145	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R146	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R147	1-216-644-11	METAL CHIP 510 0.5% 1/10W	
R148	1-216-663-11	METAL CHIP 3.3K 0.5% 1/10W	
R150	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R151	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R152	1-216-073-00	METAL CHIP 10K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R153	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R154	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R155	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R156	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R157	1-216-088-00	METAL CHIP 43K 5% 1/10W	
R158	1-216-295-00	METAL CHIP 0 5% 1/10W	
R159	1-216-041-00	METAL CHIP 470 5% 1/10W	
R171	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R172	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R173	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R174	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R175	1-216-025-00	METAL CHIP 100 5% 1/10W	
R181	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R182	1-216-104-00	METAL CHIP 200K 5% 1/10W	
R183	1-216-111-00	METAL CHIP 390K 5% 1/10W	
R184	1-216-119-00	METAL CHIP 820K 5% 1/10W	
R185	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R186	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R187	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R188	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R189	1-216-104-00	METAL CHIP 200K 5% 1/10W	
R190	1-216-111-00	METAL CHIP 390K 5% 1/10W	
R191	1-216-119-00	METAL CHIP 820K 5% 1/10W	
R192	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R193	1-216-025-00	METAL CHIP 100 5% 1/10W	
R194	1-216-025-00	METAL CHIP 100 5% 1/10W	
R196	1-216-295-00	METAL CHIP 0 5% 1/10W	
R197	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R198	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R301	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R302	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R303	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R304	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R305	1-216-295-00	METAL CHIP 0 5% 1/10W	
R306	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R307	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R308	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R309	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R310	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R311	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R321	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R322	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R323	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R324	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R325	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R326	1-216-295-00	METAL CHIP 0 5% 1/10W	
R351	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R352	1-216-121-00	METAL CHIP 1M 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R371	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R372	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R373	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R374	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R375	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R401	1-216-025-00	METAL CHIP 100 5% 1/10W	
R402	1-216-025-00	METAL CHIP 100 5% 1/10W	
R403	1-216-025-00	METAL CHIP 100 5% 1/10W	
R404	1-216-025-00	METAL CHIP 100 5% 1/10W	
R405	1-216-025-00	METAL CHIP 100 5% 1/10W	
R406	1-216-025-00	METAL CHIP 100 5% 1/10W	
R407	1-216-025-00	METAL CHIP 100 5% 1/10W	
R408	1-216-025-00	METAL CHIP 100 5% 1/10W	
R409	1-216-663-11	METAL CHIP 3.3K 0.5% 1/10W	
R410	1-216-635-11	METAL CHIP 220 0.5% 1/10W	
R411	1-216-635-11	METAL CHIP 220 0.5% 1/10W	
R412	1-216-039-00	METAL CHIP 390 5% 1/10W	
R421	1-216-025-00	METAL CHIP 100 5% 1/10W	
R422	1-216-025-00	METAL CHIP 100 5% 1/10W	
R423	1-216-025-00	METAL CHIP 100 5% 1/10W	
R424	1-216-025-00	METAL CHIP 100 5% 1/10W	
R425	1-216-025-00	METAL CHIP 100 5% 1/10W	
R426	1-216-025-00	METAL CHIP 100 5% 1/10W	
R427	1-216-025-00	METAL CHIP 100 5% 1/10W	
R428	1-216-025-00	METAL CHIP 100 5% 1/10W	
R429	1-216-663-11	METAL CHIP 3.3K 0.5% 1/10W	
R430	1-216-635-11	METAL CHIP 220 0.5% 1/10W	
R431	1-216-635-11	METAL CHIP 220 0.5% 1/10W	
R432	1-216-039-00	METAL CHIP 390 5% 1/10W	
R451	1-216-648-11	METAL CHIP 750 0.5% 1/10W	
R452	1-216-117-00	METAL CHIP 680K 5% 1/10W	
R453	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R454	1-216-021-00	METAL CHIP 68 5% 1/10W	
R455	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R456	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R457	1-216-019-00	METAL CHIP 56 5% 1/10W	
R458	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R459	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R461	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R462	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R463	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R464	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R465	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R466	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R467	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R475	1-216-295-00	METAL CHIP 0 5% 1/10W	
R491	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R492	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R493	1-216-049-00	METAL CHIP 1K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R494	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R495	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R496	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R900	1-216-295-00	METAL CHIP 0 5% 1/10W	

< VIBRATOR >

Ref. No.	Part No.	Description	Remark
X171	1-579-780-21	VIBRATOR, CRYSTAL (17.73MHz)	
X371	1-579-780-21	VIBRATOR, CRYSTAL (17.73MHz)	

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* A-7071-821-A PE-14 BOARD, COMPLETE

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(Ref. No. 9,000 Series)

< TERMINAL PIN >

Ref. No.	Part No.	Description	Remark
⚠AC001	1-535-443-00	PIN, TERMINAL (AC CORD)	
⚠AC002	1-535-443-00	PIN, TERMINAL (AC CORD)	

< FUSE >

Ref. No.	Part No.	Description	Remark
⚠F601	1-576-227-11	FUSE (H,B,C) 1.6A 250V	

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* A-7071-818-A PS-309 BOARD, COMPLETE

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(Ref. No. 4,000 Series)

< DIODE >

Ref. No.	Part No.	Description	Remark
D401	8-719-985-27	DIODE CL-140Y-CD (EDIT I/F)	
D402	8-719-987-02	DIODE CL-140PG-CD (POWER)	
D403	8-719-984-31	DIODE CL-140R-CD (STANDBY)	

< RESISTOR >

Ref. No.	Part No.	Description	Remark
R401	1-216-029-00	METAL CHIP 150 5% 1/10W	
R402	1-216-029-00	METAL CHIP 150 5% 1/10W	
R403	1-216-041-00	METAL CHIP 470 5% 1/10W	

< SWITCH >

Ref. No.	Part No.	Description	Remark
S401	1-692-446-11	SWITCH, TACTIL (LS20BB-2-T) (POWER, ON/STANDBY)	

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* A-7071-817-A VJ-11 BOARD, COMPLETE

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(Ref. No. 1,000 Series)

< FERRITE BEAD >

Ref. No.	Part No.	Description	Remark
FB101	1-239-035-11	FILTER, EMI (CHIP)	
FB102	1-239-035-11	FILTER, EMI (CHIP)	
FB103	1-239-035-11	FILTER, EMI (CHIP)	
FB104	1-239-035-11	FILTER, EMI (CHIP)	

< JACK >

Ref. No.	Part No.	Description	Remark
J101	1-566-822-21	JACK (G P I INPUT)	
J102	1-580-489-11	SOCKET, CONNECTOR 8P (EDIT I/F INPUT)	

< COIL >

Ref. No.	Part No.	Description	Remark
L101	1-410-096-31	INDUCTOR 56mH	
L102	1-410-096-31	INDUCTOR 56mH	
L103	1-410-096-31	INDUCTOR 56mH	
L104	1-410-096-31	INDUCTOR 56mH	

****

⚠ 1-413-817-11 POWER BOARD (BLOCK)

****

(Ref. No. 10,000 Series)

<CAPACITOR>

Ref. No.	Part No.	Description		
⚠C001	1-136-185-12	FILM	0.22uF	250V
⚠C002	1-130-471-11	CERAMIC	1000p	
⚠C003	1-130-471-11	CERAMIC	1000p	
⚠C004	1-136-212-12	FILM	0.1uF	250V
⚠C005	1-130-471-11	CERAMIC	1000p	
⚠C006	1-130-471-11	CERAMIC	1000p	
C007	9-904-678-01	ELECT	100uF	400V
C010	1-104-703-11	CERAMIC	330p	1kV
C011	1-124-512-51	ELECT	33uF	50V
C012	1-130-495-11	CERAMIC	0.1uF	50V
C013	1-102-115-11	CERAMIC	470p	50V
C014	1-130-479-11	CERAMIC	4700p	50V
C015	1-124-791-51	ELECT	1uF	50V
⚠C016	1-161-742-12	CERAMIC	2200p	
⚠C017	1-161-742-12	CERAMIC	2200p	
⚠C018	1-161-742-12	CERAMIC	2200p	
C019	1-130-483-11	CERAMIC	0.01uF	50V
C020	1-161-741-11	CERAMIC	1000p	250V
C021	1-161-741-11	CERAMIC	1000p	250V
C022	1-130-475-11	CERAMIC	0.022uF	50V
C101	1-126-595-11	ELECT	1500uF	16V
C102	1-126-595-11	ELECT	1500uF	16V
C103	1-130-483-11	CERAMIC	0.01uF	50V
C104	1-126-163-11	ELECT	4.7uF	50V
C105	1-126-375-11	ELECT	100uF	25V
C106	1-130-495-11	CERAMIC	0.1uF	50V
C107	1-161-742-11	CERAMIC	2200p	250V
C201	9-904-679-01	ELECT	120uF	35V
C202	1-126-375-11	ELECT	100uF	25V

<CONNECTOR>

Ref. No.	Part No.	Description	Remark
*CN1	9-904-687-01	CONNECTOR	
CN2	1-564-032-11	CONNECTOR	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

POWER SUPPLY

Ref. No.	Part No.	Description			Remark
		<DIODE>			
⚠D001	8-719-510-22	DIODE D3SB60			
D003	8-719-974-84	DIODE ERA91-02			
D004	8-719-974-84	DIODE ERA91-02			
D005	8-719-110-63	DIODE RD24ESAB			
D007	8-719-110-75	DIODE RD33ESAB			
D008	8-719-110-65	DIODE RD27SEAB			
D009	8-719-974-84	DIODE ERA91-02			
D101	9-902-455-01	DIODE ESAC82M006			
D201	9-998-447-01	DIODE ESAB92M-02			
D202	9-998-444-01	DIODE 1SS178			
		<IC>			
IC001	8-759-094-41	IC FA5314P			
IC101	8-759-711-96	IC NJM431L			
IC201	8-759-701-86	IC NJM7908FA			
		<INDUCTOR>			
⚠L001	9-904-681-01	LF-4D-223 22mH			
⚠L002	9-904-681-01	LF-4D-223 22mH			
L101	9-904-683-01	RD810A3F			
L102	9-904-682-01	LFP3A			
		<PHOTO SENSOR>			
⚠PC001	9-998-135-01	PC111			
		<RESISTOR>			
⚠R001	1-249-899-11	METAL	680K	1/4W	
R002	1-218-642-11	METAL GLAZE	100K	1W	
R003	1-218-642-11	METAL GLAZE	100K	1W	
R006	1-249-397-11	METAL	22	1/4W	
R007	1-249-429-11	METAL	10K	1/4W	
R008	1-215-882-11	METAL GLAZE	22	2W	
R010	1-249-494-11	METAL	68	1/2W	
R011	1-249-436-11	METAL	39K	1/6W	
R013	1-216-341-11	METAL OXIDE	0.22	1W	
R014	1-249-401-11	METAL	47	1/6W	
R016	1-249-433-11	METAL	22K	1/6W	
R017	1-249-429-11	METAL	10K	1/6W	
R018	1-249-417-11	METAL	1K	1/6W	
R019	1-249-429-11	METAL	10K	1/6W	
R020	1-249-433-11	METAL	22K	1/6W	
R021	1-249-434-11	METAL	27K	1/6W	
R022	1-249-441-11	METAL	100K	1/6W	
R101	1-249-413-11	METAL	470	1/6W	
R102	1-249-889-11	METAL	270	1/6W	
R103	1-249-405-11	METAL	100	1/6W	
R104	1-249-424-11	METAL	3.9K	1/6W	
R105	1-249-405-11	METAL	100	1/6W	
R105	1-249-421-11	METAL	2.2K	1/6W	
R106	1-249-405-11	METAL	100	1/6W	

Ref. No.	Part No.	Description	Remark
		<THERMISTOR>	
TH001	9-904-686-01	THERMISTOR 8D-11F2	
		<TRANSFORMER>	
⚠T001	9-904-685-01	DC/DC TRANSFORMER	
		<TRANSISTOR>	
Q001	9-904-684-01	TRANSISTOR 2SK1984	
Q002	8-729-201-59	TRANSISTOR 2SA1015	
		<VARIABLE RESISTOR>	
VR001	1-237-500-21	"RES, ADJ, CARBON 1K"	

****

MISCELLANEOUS

****

⚠7	1-413-817-11	POWER BLOCK (220V-230V)
8	1-533-189-11	HOLDER, FUSE
⚠14	1-555-795-00	CORD, POWER
53	1-751-035-11	CORD, CONNECTION
⚠F601	1-576-227-21	FUSE (H.B.C.) (250V 1.6A)

****

ACCESSORIES & PACKING MATERIALS

****

	1-575-334-11	CORD, CONNECTION (A.V)
	1-575-335-21	CORD, CONNECTION (S VIDEO)
	3-334-173-01	SHEET, PROTECTION
*	3-677-503-00	SHEET, PROTECTION
	3-756-750-21	MANUAL, INSTRUCTION (ENGLISH)
	3-756-750-31	MANUAL, INSTRUCTION (FRENCH)
	3-756-750-41	MANUAL, INSTRUCTION (GERMAN)
	3-756-750-51	MANUAL, INSTRUCTION (SPANISH)
	3-756-750-61	MANUAL, INSTRUCTION (DUTCH)
	3-756-750-71	MANUAL, INSTRUCTION (SWEDISH)
	3-756-750-81	MANUAL, INSTRUCTION (ITALIAN)
*	3-952-441-01	INDIVIDUAL CARTON
*	3-953-465-01	CUSHION, FRONT
*	3-953-466-01	CUSHION, REAR
*	3-953-703-01	CUSHION (R), PULPE
*	3-953-704-01	CUSHION (L), PULPE

****

****

HARDWARE LIST

****

#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S
#2	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3
#4	7-685-133-19	SCREW +P 2.6X6 TYPE2 NON-SLIT

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

SECTION 7
ELECTRICAL ADJUSTMENTS

During the adjustment, see the Parts Arrangement Diagram Relevant to the adjustment at the end of this section.

Prepare the following measuring equipment for electrical adjustment.

7-1. LIST OF MEASURING EQUIPMENT

- Color bar generator (with 100% white level output and S terminal output)
- Waveform monitor or oscilloscope
- Vector scope
- Digital voltmeter
- Frequency counter

7-2. NOTE ON ADJUSTMENT

Input the signal directly from the color bar generator to the waveform monitor or vector scope, and check that the 100% white level and the color vectors are correct.

*When a RAMP signal is not available from the test signal generator, a RAMP can be obtained by playing back the RAMP signal portion of the reference disc as a signal source.

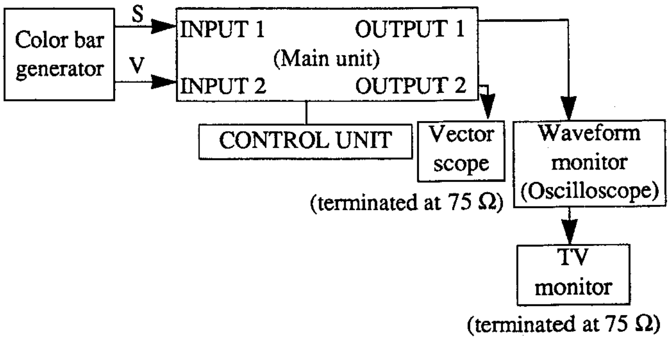
7-3. ADJUSTMENT METHOD

7-3-1. Connections

1) Connect the S video cable to INPUT 1 to input the color bar (S video) signal.
2) Connect the video cable to INPUT 2 to input the color bar (V video composite) signal.
3) Do not connect anything to the S video of INPUT 2.
4) Connect the TV monitor via the waveform monitor to the V video of OUTPUT 1. (terminated at 75 Ω)
5) Connect the vector scope to the V video of OUTPUT 2. (terminated at 75 Ω)

Note: If the waveform monitor and vector scope consist of a single unit, connect the cable to just one of the OUTPUTs.)

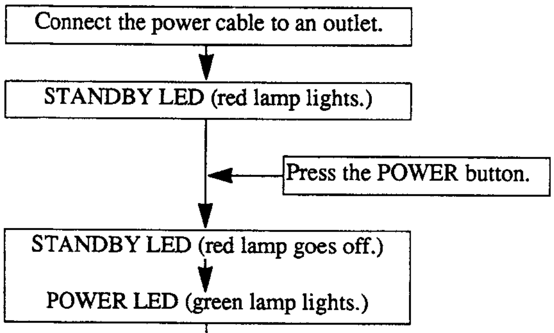
Connection diagram:


Color bar generator
S
V
INPUT 1
OUTPUT 1
(Main unit)
INPUT 2
OUTPUT 2
CONTROL UNIT
Vector scope
(terminated at 75 Ω)
Waveform monitor (Oscilloscope)
TV monitor
(terminated at 75 Ω)

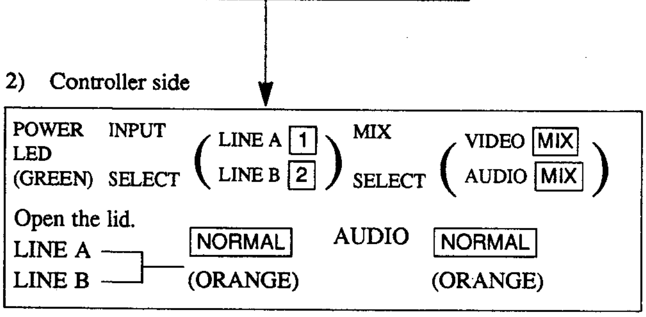
7-3-2. Checking the Initial Setting

- Initial setting: the following diagram shows which LEDs light, when the power is turned on.

1) Main unit side


Connect the power cable to an outlet.
STANDBY LED (red lamp lights.)
Press the POWER button.
STANDBY LED (red lamp goes off.)
POWER LED (green lamp lights.)

2) Controller side


POWER LED (GREEN)
INPUT SELECT
LINE A 1
LINE B 2
MIX SELECT
VIDEO MIX
AUDIO MIX
Open the lid.
LINE A
LINE B
NORMAL
(ORANGE)
AUDIO
NORMAL
(ORANGE)

Note: If OPTION, START MEMORY or 4 is not set, the initial settings illustrated above are not set. In that case, press the OPTION button to cancel.

7-4. DIGITAL VIDEO BLOCK ADJUSTMENT

7-4-1. SC Frequency Adjustment (DV-11 Board)

Mode	EE
Signal	Color bar S video
Measurement Point	IC301, pin 19
Measuring Instrument	Frequency counter
Adjusting Element	CV302
Specified Value	4,433,619Hz ± 10Hz

Adjusting method:

1) Connect the cable from the S video output of the color bar generator to INPUT (LINE A/B S video terminal).
2) Adjust it with an adjustment driver.

7-4-2. PLL Adjustment (1) (DV-11 Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP301
Measuring Instrument	Digital voltmeter
Adjusting Element	CV301
Specified Value	2V ± 0.2V DC

7-4-3. PLL Adjustment (2) (DV-11 Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP303
Measuring Instrument	Digital voltmeter
Adjusting Element	CV303
Specified Value	2V ± 0.2V DC

7-5. LINE A MEMORY BLOCK ADJUSTMENT

7-5-1. LINE A W AFC Adjustment
(MB-61 (A) Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP131
Measuring Instrument	Digital voltmeter
Adjusting Element	CV131
Specified Value	2.5V ± 0.2V DC

7-5-2. LINE A W APC Adjustment
(MB-61 (A) Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP171
Measuring Instrument	Digital voltmeter
Adjusting Element	CV171
Specified Value	2.65V ± 0.05V DC

7-5-3. LINE A R AFC Adjustment
(MB-61 (A) Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP451
Measuring Instrument	Digital voltmeter
Adjusting Element	CV451
Specified Value	2.5V ± 0.2V DC

7-5-4. LINE A R APC Adjustment
(MB-61 (A) Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP371
Measuring Instrument	Digital voltmeter
Adjusting Element	CV371
Specified Value	2.0V ± 0.2V DC

7-6. LINE B MEMORY BLOCK ADJUSTMENT

7-6-1. LINE B W AFC Adjustment
(MB-61 (B) Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP131
Measuring Instrument	Digital voltmeter
Adjusting Element	CV131
Specified Value	2.5V ± 0.2V DC

7-6-2. LINE B W APC Adjustment
(MB-61 (B) Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP171
Measuring Instrument	Digital voltmeter
Adjusting Element	CV171
Specified Value	2.65V ± 0.05V DC

7-6-3. LINE B R AFC Adjustment
(MB-61 (B) Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP451
Measuring Instrument	Digital voltmeter
Adjusting Element	CV451
Specified Value	2.5V ± 0.2V DC

7-6-4. LINE B R APC Adjustment
(MB-61 (B) Board)

Mode	EE
Signal	Color bar S video
Measurement Point	TP371
Measuring Instrument	Digital voltmeter
Adjusting Element	CV371
Specified Value	2.0V ± 0.2V DC

7-7. SERVICE MODE

Note: Perform the following electronic adjustments in service mode and in the specified order.

- POWER LED (green) flashes while the unit is in service mode.
- To escape from service mode in the middle of a procedure, press either of the POWER buttons (on the unit or control unit). The unit will return to normal mode.

7-7-1. Setting Procedure to Enter Service Mode

- The following explanation mainly concerns operating the buttons and levers on the control unit.

1) Press the OPTION button, and check that 6 lights.
   - 6: Does not light → Press the 6 button, and press the OPTION button.
   - The white fade out level becomes 100%. (Be sure to check this.)
2) Press the OPTION button, and check that 4 lights.
   - 4 : Does not light → Press the 4 button, press it again to turn it off, and press the OPTION button.
   - Check that RECALL and WIPE POSITION go off.
3) Press the AUTO button to light it.
4) Move the MANUAL MIX lever to LINE A.
5) Press START MEMORY of PROGRAM MEMORY, 4, 10 and 10.
6) Move the MANUAL MIX lever to LINE B.
7) Press 7, 1, 5 and 7.
8) Move the MANUAL MIX lever to LINE A.
9) Press the START button. Three beeps sound.
10) Service mode setting is completed. (Refer to SERVICE MODE in the SERVICING NOTE at the beginning of this document.)

7-7-2. Control Unit Check

1) Press the 10 button in the PROGRAM MEMORY block.
2) All LEDs light.
3) Press all the buttons one after another (except the POWER button) to turn off the LEDs.
4) Press all the buttons to reset to the original status.

Note:
- Do not press the POWER button.
- Each button must light and then turn off its corresponding LED.

7-7-3. Sync Level Adjustment

Adjusting method:

1) Press the 1 button in the PROGRAM MEMORY block.
2) Measure the sync signal amplitude with the waveform monitor and adjust the sync amplitude with the ∧ and ∨ buttons in the panel so that it is 300mV ± 5mV.

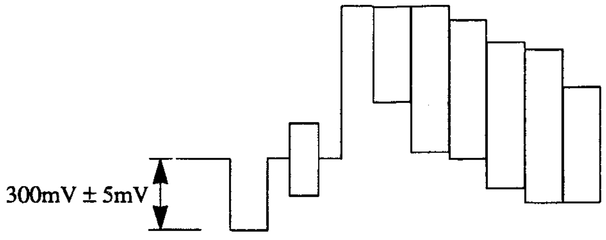
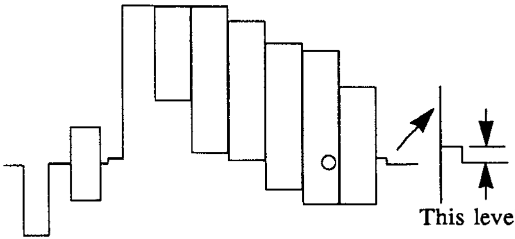


Fig. 7-1.

7-7-4. Fader DC Balance Adjustment

Adjusting method:

1) Press 7 in the PROGRAM MEMORY block.
2) INPUT SELECT
   LINE A 1 (color bar S video output)
   LINE B 1 (color bar S video output)
3) WIPE SELECT
   Press the ◧ button.
4) Measure the pedestal level at the black 0% of the color bar signal with the waveform monitor. Move WIPE to the center of the black bar and minimize the level difference as shown using the < and > buttons on the panel. (If WIPE is out of range, move it with the ∧ and ∨ buttons.)



This level difference must be minimum.

Fig. 7-2.

7-7-5. Set Up Level Adjustment

1) Press the MIX button in the MIX SELECT block.
2) Press the BLACK button in the MIX SELECT block.
3) Turn the MANUAL MIX lever to the opposite side.
4) The display turns black.
5) Press the 4 button in the PROGRAM MEMORY block.
6) Adjust SET UP to 0% with the ∧ and ∨ buttons.

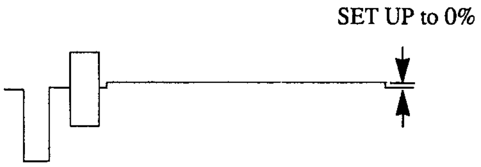


Fig. 7-3.

7-7-6. White Fade Adjustment

Adjusting method

1) Press the 3 button in the PROGRAM MEMORY block.
2) Press the WHITE button in the MIX SELECT block.
3) Adjust the white level to 100% with the ∧ and ∨ buttons.

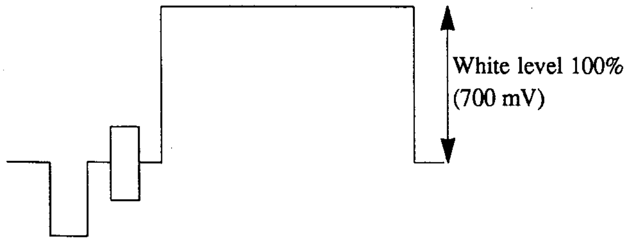
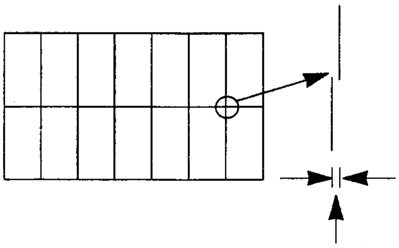


Fig. 7-4.

7-7-7. H Center Adjustment (Horizontal position adjustment of LINE A and LINE B)

Adjusting method:

1) Press ⬒ in the WIPE SELECT block.
2) Set the MANUAL MIX lever to the center.
3) Press the LUMINANCE and H CENTER buttons of LINE A.
4) Press the same buttons of LINE B.
5) Adjust any difference in position to the minimum with the < and > buttons.



This horizontal difference must be minimum.

Fig. 7-5.

7-7-8. Write Y Level Balance Adjustment

* This adjustment needs the S video RAMP signal.

Adjusting method:

1) LINE A – RAMP (S)
2) LINE B – RAMP (S)
3) Press ⬒ in the WIPE SELECT block.
   Move the MANUAL MIX lever to the center.
4) Press the BIT DEFECT button three times.
   (The coarsest bit defect is selected.)
5) Press the 9 button.

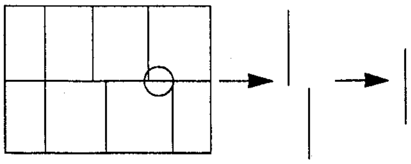


Fig. 7-6.

Align the vertical line at the upper right end with the line below using the < and > buttons.

Note: If there is no RAMP signal, do not adjust this.

7-7-9. Ready Level Adjustment

Adjusting method:

1) INPUT SELECT
   LINE A [1] (color bar S)
   LINE B [1] (color bar S)
2) Press ◧ in the WIPE SELECT block.
3) Move the [MANUAL MIX] lever to LINE A.
4) Press the [LUMINANCE] and [H CENTER] buttons of LINE A.
   Adjust the Y level with the [LUMINANCE] and [H CENTER] buttons of LINE A, and the [∧] and [∨] buttons.

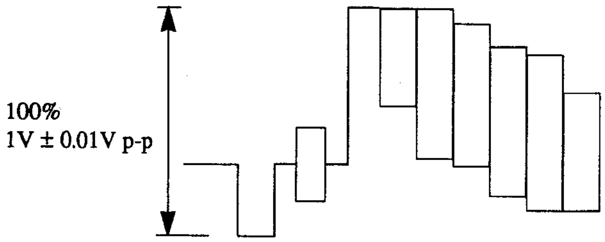

100%
1V ± 0.01V p-p

Fig. 7-7.

7-7-10. Ready Y Level Balance Adjustment

Adjusting method:

1) Press the [LUMINANCE] and [H CENTER] buttons of LINE B.
2) Move the [MANUAL MIX] lever to the center of the white bar.

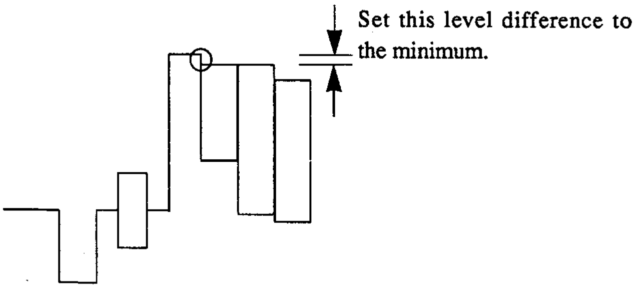

Set this level difference to the minimum.

Fig. 7-8.

Adjust with the [LUMINANCE] and [H CENTER] buttons of LINE B, and the [∧] and [∨] buttons.

7-7-11. Y/C SEP Y Level Adjustment

Adjusting method:

1) INPUT SELECT
   LINE A [2] (color bar V)
   LINE B [1] (color bar S video output)
2) Press the ◧ button in the WIPE SELECT block.
   Move the [MANUAL MIX] lever to the center of the white bar.
3) Press the [5] button.

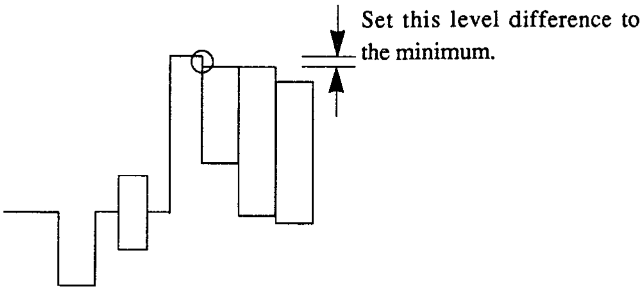

Set this level difference to the minimum.

Fig. 7-9.

4) Adjust with the [∧] and [∨] buttons.

7-7-12. Y/C SEP Y Level Balance Adjustment

Adjusting method:

1) INPUT SELECT
   LINE A [2] (color bar V)
   LINE B [2] (color bar V)
2) Press the ◧ button in the WIPE SELECT block.
   Move the [MANUAL MIX] lever to the center of the white bar.
3) Press the [5] button.

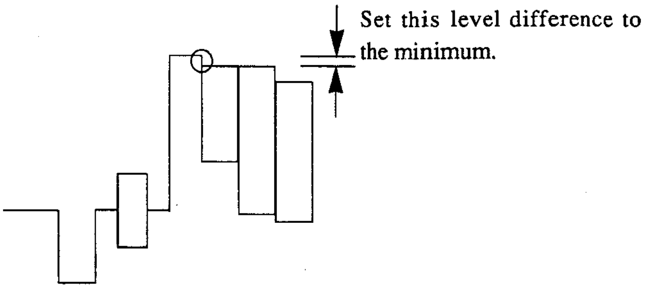

Set this level difference to the minimum.

Fig. 7-10.

4) Adjust with the [<] and [>] buttons.

7-7-13. Burst Level Adjustment

Adjusting method:

1) INPUT SELECT
   LINE A [1] (color bar S)
   LINE B [1] (color bar S)
2) Press the ▬ button in the WIPE SELECT block.
3) Move the [MANUAL MIX] lever to LINE A.
4) Press the [2] button.
5) Using the vector scope in PAL mode, adjust the two bright spots to the specified positions with the [∧], [∨], [<] and [>] buttons.

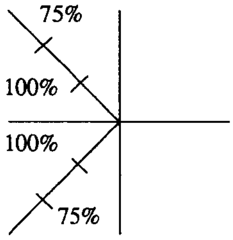


Fig. 7-11.

7-7-14. White Balance Adjustment

Adjusting method:

1) INPUT SELECT
   LINE A [1] (color bar S video output)
   LINE B [1] (color bar S video output)
2) Press the ▬ button in the WIPE SELECT block.
3) Move the [MANUAL MIX] lever to LINE A.
4) Press the [WHITE BALANCE] button.
5) Using the vector scope in NTSC mode (+V), adjust the gain maximum bright spot to the center with the [∧], [∨], [<] and [>] buttons.

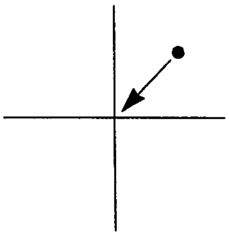


Fig. 7-12.

Specification:
The brightening spot is at the center.

7-7-15. Read Chroma Adjustment

Adjusting method:

1) INPUT SELECT
   LINE A [1] (color bar S video output)
   LINE B [1] (color bar S video output)
2) Press the ▬ button in the WIPE SELECT block.
3) Move the [MANUAL MIX] lever to LINE A.
4) Press the [CHROMINANCE] button.
5) The [<] and [>] buttons (for selecting HUE)
6) The [∧] and [∨] buttons (for selecting LEVEL)
7) Set the vector scope in NTSC mode (+ V), and set the gain control to the detent calibrated (75%) position.
8) Adjust the two bright spots so that they overlap each other in the specified six color zones using the step 5 and step 6 buttons.

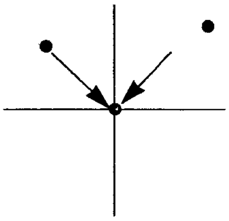


Fig. 7-13.

7-7-16. Read Chroma Balance Adjustment

Adjusting method:

1) INPUT SELECT
   LINE A [1] (color bar S video output)
   LINE B [1] (color bar S video output)
2) Press the ▬ button. (in the WIPE SELECT block)
3) Move the [MANUAL MIX] lever to the center.
4) Press the [CHROMINANCE] button of LINE B.
5) The [<] and [>] buttons (for selecting HUE)
6) The [∧] and [∨] buttons (for selecting LEVEL)
7) Set the vector scope to NTSC mode (+ V), and set the gain control to the detent calibrated (75%) position.
8) Use the step 5 and step 6 buttons to adjust the two bright spots so that they overlap each other, and also overlap the bright spots of section 7-7-15 LINE A.

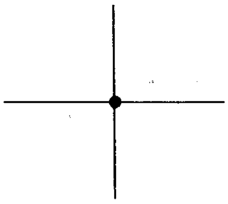


Fig. 7-14.

7-8. SAVING SERVICE ADJUSTMENT DATA

- Write the adjustment values from sections 7-7-2 through 7-7-16 into the EEPROM in the unit.

Note: If this operation is not performed, these values are not saved. The data will be lost when the power is turned off.

7-8-1. Adjustment Ending Procedure

1) Press the SET button in PROGRAM MEMORY. (This saves the adjustment value into EEPROM.)

7-8-2. Canceling Service Mode

1) Press the POWER button of the control unit.
2) The POWER LED goes off.
3) The STANDBY LED goes on.

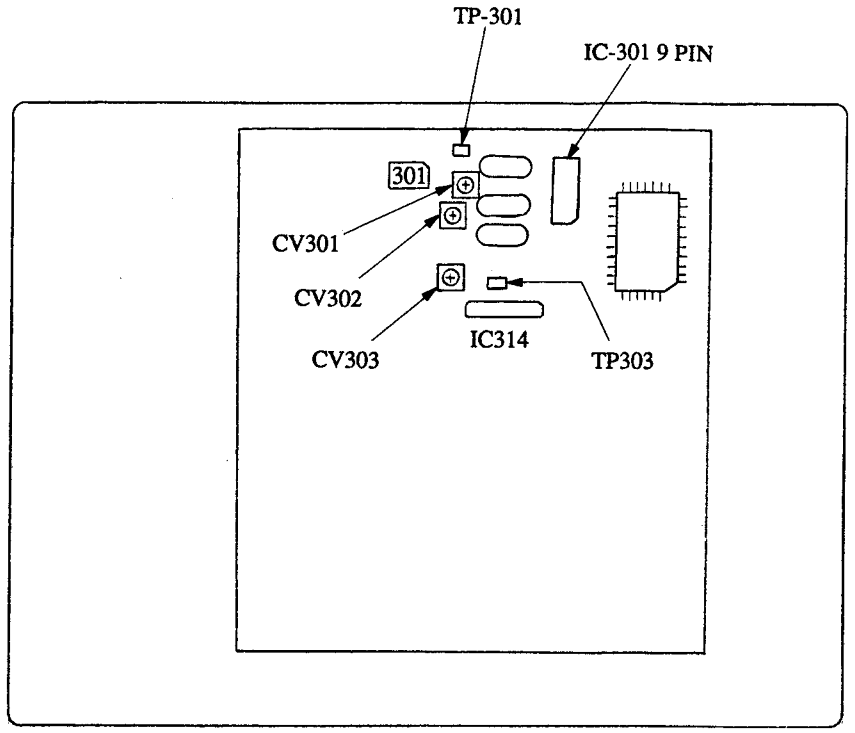
7-9. DEMONSTRATION MODE CHECK

- Connect the video signals to INPUT 1 and INPUT 2.
- Connect the TV monitor to OUTPUT.

1) Press the POWER button.
   - The POWER LED (green) lights.
     Check that the POWER LED is not flashing, but lights (service mode is released).
     The STANDBY LED goes off.
2) Press the OPTION, 1 and OPTION buttons (in the PROGRAM MEMORY block) in this order.
3) Press the POWER button twice.
4) Demonstration mode starts.
   - Watch the monitor and visually check that each effect operation is normal.
5) Press the OPTION, 1 and OPTION buttons (in the PROGRAM MEMORY block) in this order to release demonstration mode.
6) Demonstration mode ends.
7) Refer to Demonstration mode in the SERVICING NOTE at the beginning of this document.

7-10. ADJUSTMENT PARTS ARRANGEMENT DIAGRAM

DV-11 BOARD –A SIDE–



Note: Two pieces of MB-61 board are used. They are named MB-61 (A) and MB-61 (B) board used for LINE-A and LINE-B. As the repair part, the MB-61 board is supplied that can be used for both LINE-A and LINE-B.

MB-61 BOARD –B SIDE–